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No. _____

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IN THE

Supreme Court of the United States

OCTOBER TERM, 1988

AMERICAN MINING CONGRESS,
THE ALUMINUM ASSOCIATION, AND KENNECOTT,
Petitioners,

v.

ENVIRONMENTAL DEFENSE FUND,
HAZARDOUS WASTE TREATMENT COUNCIL,
UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY and LEE M. THOMAS, ADMINISTRATOR,
Respondents.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

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QUESTIONS PRESENTED

1. Whether the decision of the United States Court of Appeals for the District of Columbia Circuit violated the purpose and plain language of the Bevill Amendment to the Resource Conservation and Recovery Act by interpreting the phrase "[s]olid waste from the extraction, beneficiation, and processing of ores and minerals," 42 U.S.C. § 6921(b)(3)(A)(ii), to cover all extraction and beneficiation wastes, but only "high volume, low hazard" processing wastes?

2. Whether the United States Court of Appeals for the District of Columbia Circuit violated the Administrative Procedure Act and the doctrines of ripeness and primary jurisdiction by deciding, in the absence of an agency determination, that certain processing wastes are not "high volume, low hazard" wastes and thus not covered by the Bevill Amendment, 42 U.S.C. § 6921(b)(3)(A)?

LIST OF PARTIES

The parties to the proceedings below were as follows:

Environmental Defense Fund and Hazardous Waste Treatment Council, petitioners;

United States Environmental Protection Agency and Lee M. Thomas, Administrator, respondents; and

American Mining Congress, The Aluminum Association, The Fertilizer Institute, Kennecott, and Idaho Mining Association, intervenors.

American Mining Congress is an industry trade association with no parent company, subsidiaries or affiliates.

The Aluminum Association is an industry trade association with no parent company, subsidiaries or affiliates.

Kennecott is a wholly-owned subsidiary of B.P. Minerals America, Inc. B.P. Minerals America, Inc., is a wholly-owned subsidiary of British Petroleum Company, Ltd.

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Respondents.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

Petitioners American Mining Congress, The Aluminum Association, and Kennecott respectfully pray that a writ of certiorari issue to review the judgment and opinion of the United States Court of Appeals for the District of Columbia Circuit ("the Court of Appeals"), entered in the above-titled proceeding on July 29, 1988, rehearing denied on August 23, 1988, *en banc* rehearing denied on September 20, 1988.

OPINION BELOW

The judgment and opinion of the Court of Appeals for the District of Columbia Circuit is reported at 852

F.2d 1316. The judgment and opinion, as well as orders of the Court of Appeals denying rehearing and denying rehearing *en banc*, are reproduced verbatim in Appendix A.

JURISDICTIONAL STATEMENT

The Environmental Defense Fund and the Hazardous Waste Treatment Council brought suit in the Court of Appeals invoking federal jurisdiction pursuant to section 7006(a) of the Resource Conservation and Recovery Act, 42 U.S.C. § 6976(a), and the Administrative Procedure Act, 5 U.S.C. § 702. The jurisdiction of this Court to review the judgment of the Court of Appeals is invoked pursuant to 28 U.S.C. § 1254(1).

STATUTORY AND REGULATORY PROVISIONS

The statutory provisions primarily at issue in this Petition are sections 3001(b)(3)(A) and (C) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6921(b)(3)(A) and (C). Other statutory provisions relevant to this Petition are RCRA sections 3001(a) and (b)(1), 42 U.S.C. §§ 6921(a) and (b)(1), and 8002(f), (n), (o), and (p), 42 U.S.C. §§ 6982(f), (n), (o), and (p). Federal Register notices pertinent to this Petition are 43 Fed. Reg. 58,946 (1978), 45 Fed. Reg. 33,084 (1980), 45 Fed. Reg. 33,154 (1980), 45 Fed. Reg. 47,832 (1980), 45 Fed. Reg. 76,618 (1980), 46 Fed. Reg. 4615 (1981), 46 Fed. Reg. 27,473 (1981), 50 Fed. Reg. 40,292 (1985), 51 Fed. Reg. 36,233 (1986), 53 Fed. Reg. 35,412 (1988), and 53 Fed. Reg. 41,288 (1988).

The statutory provisions are reproduced verbatim in Appendix B. Relevant portions of the Federal Register notices are reproduced verbatim in Appendix C.

STATEMENT OF THE CASE

By this Petition, this Court is asked to review a decision of the United States Court of Appeals for the District of Columbia Circuit[1] prohibiting EPA from complying with the plain language of the Bevill Amendment to the Resource Conservation and Recovery Act.[2] Shortly after EPA first promulgated RCRA Subtitle C regulations governing industrial, manufacturing and mining wastes,[3] Congress enacted the Bevill Amendment.[4] The Bevill Amendment suspended the mining waste regulations and required EPA to undertake a study of mining wastes in order to develop a unique approach to mining waste regulation.[5] While the plain language of the Bevill Amendment demonstrates that all mining industry processing wastes are covered by the Amendment,[6] the Court of Appeals limited the coverage of the Amendment to "high volume, low hazard" processing wastes.[7] As a result of the court's improper holding, EPA listed the six processing wastes at issue in this

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[1] *Environmental Defense Fund v. Environmental Protection Agency* (*"EDF v. EPA II"*), 852 F.2d 1316 (D.C. Cir. 1988) (Oberdorfer, J., sitting by designation); Appendix ("App.") at 1a.

[2] The Resource Conservation and Recovery Act is codified at 42 U.S.C. §§ 6901-6991i. The Bevill Amendment is codified at 42 U.S.C. §§ 6921(b)(3)(A) and (C) and §§ 6982 (f), (n), (o), and (p).

[3] 45 Fed. Reg. 33,084 (1980).

[4] Pub. L. No. 96-482, 94 Stat. 2334 (1980).

[5] RCRA §§ 3001(b)(3)(A)(ii) and (C), 42 U.S.C. §§ 6921(b)(3)(A)(ii) and (C).

[6] *See* section I.A., *infra*.

[7] *EDF v. EPA II*, 852 F.2d at 1327-29; App. at 21a-26a.

case[8] as hazardous wastes under Subtitle C without considering the unique regulatory factors set out in the Bevill Amendment and without following the unique regulatory approach contemplated by Congress for those wastes.[9] In addition, even if the Court of Appeals properly interpreted the scope of the Bevill Amendment, the court usurped EPA's discretion to determine, after notice and comment rulemaking, whether the six processing wastes are in fact "high volume, low hazard" wastes.[10] The court's unwarranted activism violated the doctrines of ripeness and primary jurisdiction and petitioners' rights to have that issue decided on a fully developed administrative record.

Background

Subtitle C of RCRA,[11] enacted in 1976, established a detailed and complex regulatory program that governs the generation, transportation, storage, treat-

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[8] These "six processing wastes" are: acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production; surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities; sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production; spent potliners from primary aluminum production; emission control dust or sludge from ferrochromium-silicon production; and emission control dust or sludge from ferrochromium production.

[9] 53 Fed. Reg. 35,412, 35,420-21 (1988).

[10] *See* section II, *infra*.

[11] 42 U.S.C. §§ 6921-6939b.

ment and disposal of hazardous wastes.[12] Subtitle C directed EPA to promulgate technical criteria for determining whether a waste should be listed as a hazardous waste and thus become subject to Subtitle C regulation.[13] However, because Congress lacked sufficient information regarding the potential hazard posed by mining wastes, Congress directed EPA in section 8002(f) of RCRA[14] to conduct a detailed study of mining wastes.[15] The purpose of the section 8002(f) study was to determine whether mining wastes have any adverse effects on the environment by evaluating such factors as the sources and volume of mining wastes, mining waste disposal practices, and existing state and federal regulatory programs addressing mining wastes.[16]

Without conducting that study, EPA in May and July of 1980 listed the six processing wastes as hazardous wastes under Subtitle C.[17] Before the listings became effective, however, Congress enacted the Bevill Amendment which was intended to relieve the domestic mining industry of the onerous economic burden of the stringent Subtitle C regulations, if at all possible.[18] The Bevill Amendment was designed to

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[12] *Environmental Defense Fund v. Environmental Protection Agency* ("*EDF v. EPA I*"), 852 F.2d 1309, 1310 (D.C. Cir. 1988). *EDF v. EPA I* was a companion case to the case at bar.

[13] These criteria are codified at 40 C.F.R. § 261.11.

[14] 42 U.S.C. § 6982(f).

[15] *EDF v. EPA I*, 852 F.2d at 1310.

[16] *Id.*

[17] 45 Fed. Reg. 33,084, 33,123-24 (1980); 45 Fed. Reg. 47,832, 47,833-34 (1980); *see also* 46 Fed. Reg. 4615, 4617-19 (1981).

[18] *EDF v. EPA I*, 852 F.2d at 1312, 1315.

break with the traditional Subtitle C approach to regulating industrial and manufacturing wastes by creating a unique regulatory approach for mining wastes.[19] It forbade the imposition of Subtitle C controls upon:

> [s]olid waste from the extraction, beneficiation, and processing of ores and minerals
> . . . .

until EPA studied those mining wastes and determined, based on the unique factors specified in the Bevill Amendment, whether Subtitle C controls for those wastes are warranted.[20] The mining waste study commissioned earlier under section 8002(f) was expanded to address the new factors set out in section 8002(p).[21] The expanded study was to address, among other things, whether mining waste disposal had any documented adverse effects on human health and the environment, whether Subtitle C controls of mining waste would have an adverse impact on the nation's use of natural resources, and the cost of various regulatory alternatives.[22] And in section 3001(b)(3)(C),

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[19] *EDF v. EPA I*, 852 F.2d at 1314. In addition to provisions regarding mining industry wastes, the Bevill Amendment included provisions applicable to wastes generated from the combustion of coal and other fossil fuels, 42 U.S.C. §§ 6921(b)(3)(A)(i) and (C) and 6982(n), and cement kiln dust wastes, 42 U.S.C. §§ 6921(b)(3)(A)(iii) and (C) and 6982(o).

[20] 42 U.S.C. §§ 6921(b)(3)(A)(ii) and (C).

[21] 42 U.S.C. § 6982(p).

[22] *Id. EDF v. EPA I* discusses the purpose of the Bevill Amendment study and lists reasons why Congress mandated separate consideration of mining wastes using the factors set forth in sections 8002(f) and (p). The court explained, for ex-

Congress directed EPA, after completing the mining waste study and reporting the results to Congress, to determine whether Subtitle C regulation of Bevill Amendment mining wastes is warranted.[23] The determination was to be made after public hearings and comments, and not later than six months after EPA submitted the mining waste study to Congress.[24]

Shortly after the Bevill Amendment was enacted, EPA issued a rule interpreting the Amendment to apply to all "extraction, beneficiation and processing" wastes.[25] Based on that interpretation, the Agency suspended its May and July 1980 rules listing the six processing wastes as hazardous wastes under Subtitle C,[26] so that the wastes could be studied along with the other mining wastes covered by the Bevill Amendment.

In 1985, EPA proposed to reinterpret the Bevill Amendment to apply to all extraction and beneficiation wastes, but only "high volume, low hazard" proc-

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ample, that Congress presumed that industrial and manufacturing wastes that met the technical Subtitle C criteria for being classified as hazardous would pose a sufficient risk to health and the environment to warrant Subtitle C controls. However, because mining waste sites are normally found in settings that pose a lower risk than typical Subtitle C wastes, in the Bevill Amendment, "Congress eschewed a narrow technical approach to imposition of Subtitle C controls, choosing to evaluate the need for regulations by focussing on the actual dangers posed by mining wastes." 852 F.2d at 1314.

[23] 42 U.S.C § 6921(b)(3)(C).

[24] *Id.*

[25] 45 Fed. Reg. 76,618, 76,619-20 (1980).

[26] 45 Fed. Reg. at 76,619; 46 Fed. Reg. 27,473, 27,477 (1981).

essing wastes.[27] At the same time, the Agency proposed to relist the six processing wastes under Subtitle C based on EPA's suggestion that the six processing wastes were not high volume, low hazard wastes.[28] The Agency's proposal did not, however, specifically find that the six wastes were not high volume, low hazard wastes nor did EPA attempt to distinguish "high volume, low hazard" processing wastes from other processing wastes.[29]

In October 1986, EPA withdrew its 1985 proposed Bevill Amendment reinterpretation because EPA could not at that time distinguish between "high volume, low hazard" processing wastes and other processing wastes.[30] EPA also withdrew its proposed listing of the six processing wastes because those wastes remained covered by the Agency's long-standing 1980 rule applying the Bevill Amendment to all processing wastes, which the Agency affirmed was consistent with the statute.[31] After withdrawing the proposal, EPA commenced its Bevill Amendment study of all mining industry processing wastes including the six processing wastes.

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[27] 50 Fed. Reg. 40,292, 40,292-94 (1985).

[28] 50 Fed. Reg. at 40,301.

[29] *See* 50 Fed. Reg. at 40,292-302.

[30] 51 Fed. Reg. 36,233, 36,235 (1986). The District Court for the District of Columbia had imposed a schedule on EPA for finalizing the 1985 proposal. *Concerned Citizens of Adamstown v. Environmental Protection Agency*, Civ. No. 84-3041 (D.D.C. Aug. 21, 1985). However, the Agency was unable to meet that schedule. *See EDF v. EPA II*, 852 F.2d at 1321; App. at 9a-10a.

[31] 51 Fed. Reg. at 36,235.

The Decision Below

The Environmental Defense Fund and the Hazardous Waste Treatment Council petitioned the Court of Appeals to review EPA's 1986 withdrawal action. On July 29, 1988, the Court of Appeals granted the petition, concluding that EPA's 1980 interpretation of the Bevill Amendment was incorrect.[32] Although the Bevill Amendment covers "[s]olid waste from the extraction, beneficiation, and processing of ores and minerals," the Court of Appeals decided, based on an erroneous reading of the Bevill Amendment's legislative history, that Congress intended the Amendment to cover all extraction and beneficiation wastes but only "high volume, low hazard" processing wastes.[33]

Because neither the Bevill Amendment nor its legislative history delineates criteria that distinguish "high volume, low hazard" processing wastes from other processing wastes, the court ordered EPA to establish such criteria.[34] Based on its erroneous belief that EPA had previously "found" the six processing wastes to be "low volume and high hazard wastes," the court also held that those six wastes are in fact not high volume, low hazard wastes.[35] However, EPA

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[32] *EDF v. EPA II*, 852 F.2d at 1329; App. at 25a-26a.

[33] *EDF v. EPA II*, 852 F.2d at 1327-29; App. at 21a-26a. In the companion case, *EDF v. EPA I*, the Court of Appeals rejected a challenge to EPA's Bevill Amendment regulatory determination that solid wastes from the extraction and beneficiation of ores and minerals do not warrant Subtitle C controls, but rather are properly regulated under other provisions of RCRA. 852 F.2d at 1314-16.

[34] *EDF v. EPA II*, 852 F.2d at 1331; App. at 30a-31a.

[35] *EDF v. EPA II*, 852 F.2d at 1330; App. at 27a.

has never made such a determination and is only now attempting to develop criteria that identify "high volume, low hazard" processing wastes.[36]

In direct response to the Court of Appeals' decision, EPA listed the six processing wastes as hazardous wastes under Subtitle C without considering the unique factors set out in the Bevill Amendment and without determining whether regulation of those six wastes under Subtitle C is warranted.[37] The injury caused by the Court of Appeals' ruling is not, however, limited to the six processing wastes; EPA is also now precluded from considering the Bevill Amendment factors and deciding whether regulation under Subtitle C is warranted for all other processing wastes that are not determined to be "high volume, low hazard" wastes.[38]

REASONS FOR GRANTING THE WRIT

I. This Petition for Certiorari Should be Granted Because the Decision of the Court of Appeals Wrongfully Limits the Congressional Mandate That All Mining Industry Processing Wastes Be Subject to the Unique Study and Regulatory Determination Provisions of the Bevill Amendment.

In the Bevill Amendment, Congress expressly directed EPA to conduct a study to determine whether "[s]olid waste from the extraction, beneficiation, and processing of ores and minerals" warrants regulation

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[36] *See* 53 Fed. Reg. 41,288, 41,291-96 (1988).

[37] 53 Fed. Reg. at 35,420-21.

[38] The domestic mining industry generates over 80 million metric tons of processing wastes each year. *See* 53 Fed. Reg. at 41,296.

under Subtitle C of RCRA.[39] By relying on an erroneous interpretation of the Bevill Amendment's legislative history, the Court of Appeals substantially qualified the plain meaning of the Amendment by interpreting the Amendment to cover all extraction and beneficiation wastes, but only "high volume, low hazard" processing wastes.[40] Moreover, the legislative history fails to support the court's interpretation; on the contrary, the legislative history reveals that Congress intended that EPA study all mining industry processing wastes before deciding whether they should be regulated under Subtitle C.

A. The Text of the Statute Reveals Plainly That All Processing Wastes Are Covered By the Bevill Amendment.

This Court has repeatedly held that courts must give effect to the plain meaning of statutory language.[41] Courts may not, under the guise of statutory interpretation, insert words or phrases into statutory language that alter the statute's meaning.[42]

The question before the Court of Appeals in this case was whether the Bevill Amendment covers all solid waste from processing or only "high volume, low hazard" solid waste from processing. The Bevill Amendment, on its face, unambiguously applies to all solid waste from processing. There are simply no words in the language of the Amendment limiting or qualifying the phrase "[s]olid waste from the extrac-

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[39] 42 U.S.C. § 6921(b)(3)(A)(ii).

[40] *See EDF v. EPA II*, 852 F.2d at 1328-29; App. at 25a.

[41] *See, e.g., Griffen v. Oceanic Contractors, Inc.*, 458 U.S. 564, 570 (1982).

[42] *United States v. Temple*, 105 U.S. 97, 98 (1881).

tion, beneficiation, and processing of ores and minerals."[43] Had Congress meant to exclude certain processing wastes from the coverage of the Bevill Amendment, it would have done so explicitly; this is particularly true here because, as the Court of Appeals has recognized, RCRA is a statute characterized by "definitional specificity of the first order."[44]

EPA, the agency entrusted by Congress to implement the Bevill Amendment, interpreted the Amendment in 1980 to apply to all processing wastes.[45] In 1986, the Agency confirmed its 1980 interpretation and rejected a proposal to limit the Amendment's coverage to "high volume, low hazard" processing wastes.[46] Because EPA's interpretation, which reflects the statute's plain meaning, is entitled to substantial deference,[47] that interpretation should have been upheld by the Court of Appeals.

Despite the foregoing, the Court of Appeals asserted, without explanation, that the statutory phrase "[s]olid waste from . . . processing of ores and minerals" does not convey a self-evident, accepted meaning.[48] The Court of Appeals noted that EPA stated in its 1985 proposal that the term "processing" has

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[43] *See* 42 U.S.C. § 6921(b)(3)(A)(ii).

[44] *American Mining Congress v. Environmental Protection Agency*, 824 F.2d 1177, 1189 (D.C. Cir. 1987).

[45] 45 Fed. Reg. at 76,620.

[46] 51 Fed. Reg. at 36,235.

[47] *See International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America v. Daniel*, 439 U.S. 551, 566 n.20 (1979) (agency's longstanding interpretation of statute is entitled to considerable weight).

[48] *EDF v. EPA II*, 852 F.2d at 1327; App. at 22a.

no standard definition.[49] The definition of processing, however, is irrelevant to the issue that was before the court;[50] any ambiguity that term may have provides no basis for deciding that only certain processing wastes are covered by the Amendment. However difficult it may be to ascertain whether a waste comes from a processing operation, once a waste is determined to be a processing waste, it is plainly covered by the Bevill Amendment.[51]

By construing the statutory phrase "[s]olid waste from . . . processing" to mean "only high volume, low

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[49] *Id.*

[50] Determining the precise definition of "processing" was unnecessary to the court's holding; the court repeatedly acknowledged that the six wastes are indeed "processing" wastes. *See, e.g., EDF v. EPA II*, 852 F.2d at 1330 ("No processing wastes were studied because the 1985 reinterpretation proposed to remove most of those wastes (including the six [processing] wastes) from the scope of the Bevill Amendment"); *see also id.* at 1331 ("EPA shall make a final determination of which processing wastes remain within the Bevill exclusion as "high volume, low hazard" special wastes"). Moreover, that the six wastes derive from processing is simply inherent in the court's holding that the Amendment was intended to reach only "high volume, low hazard" processing wastes and not the remaining processing wastes.

[51] The Court of Appeals also attempted to justify its narrow interpretation by noting that processing wastes are typically produced in lesser quantities than are extraction and beneficiation wastes. 852 F.2d at 1327. This argument lacks support and merit. It is inherent in the nature of the minerals purification process that processing operations typically generate lower volumes of waste than do extraction or beneficiation operations. *See American Mining Congress v. EPA*, 824 F.2d at 1181 (concentration and purification of metals and minerals takes place incrementally). Nonetheless, Congress included processing wastes, without limitation, within the Bevill Amendment.

hazard processing waste," the decision of the Court of Appeals violated the plain meaning of the statute and should be reversed.

B. The Court of Appeals Erred By Relying on the Legislative History of the Bevill Amendment to Distort the Plain Meaning of the Amendment and By Erroneously Interpreting that History.

Where the terms of a statute are unambiguous, judicial inquiry is complete, except in those "rare and exceptional circumstances" where there is a "clearly expressed legislative intention to the contrary."[52] This case does not present those rare and exceptional circumstances.

First, the Court of Appeals failed to acknowledge that Congressman Bevill, the sponsor of the Amendment, stated that his Amendment should be read broadly to include all mining wastes, including processing wastes:

> The list of waste materials in the amendment . . . [should] be read broadly, to incorporate the waste products generated in the real world . . . .
>
> I wish to emphasize that this intention applies equally to . . . all solid wastes which genuinely and legitimately result from the extraction, beneficiation, and processing of ores and minerals . . . .[53]

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[52] *United States v. James*, 478 U.S. 597, 606 (1986).

[53] 126 Cong. Rec. E4957 (daily ed. Nov. 17, 1980) (extension of remarks by Congressman Bevill).

Because the views of an Act's sponsor should be given great weight when interpreting that Act,[54] the Court of Appeals erred by not interpreting the Bevill Amendment broadly to include all wastes from processing.

Second, the court drew an erroneous conclusion from portions of the Bevill Amendment's legislative history that refer to a "special wastes" category that was included in a rule proposed by EPA in 1978.[55] The 1978 proposal would have established modified Subtitle C controls for "special wastes" (including mining wastes) which, based on the "limited" information available to the Agency at the time, were thought to occur in high volumes but pose little hazard relative to typical Subtitle C wastes.[56] The Court of Appeals concluded that because the legislative history discusses "special wastes," Congress must have intended the Bevill Amendment to cover only "high volume, low hazard" processing wastes. The court's conclusion was unwarranted and erroneous.

Although the legislative history refers to "special wastes," there is nothing in the legislative history to support the conclusion that Congress meant by those references to exclude any processing wastes from Bevill Amendment coverage. In fact, the references in the legislative history to the 1978 EPA proposal support the conclusion that Congress intended the Bevill Amendment to cover all processing wastes. The "special wastes" category in the 1978 proposal specifically

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[54] *Federal Energy Administration v. Algonquin SNG, Inc.*, 426 U.S. 548, 564 (1976).

[55] *See* 43 Fed. Reg. 58,946, 58,991-92 (1978).

[56] 43 Fed. Reg. at 58,991.

included "other mining wastes." "Other mining wastes" was defined by that proposal as discarded material from "the extraction, beneficiation, and processing of ores and minerals."[57] That language, of course, is the same language Congress used in the text of the Bevill Amendment. Thus, even if the appeals court is correct in holding that the Bevill Amendment is limited to only "special wastes," as EPA defined that term in the 1978 proposal, that proposal demonstrates that all processing wastes were "special wastes," and therefore covered by the Bevill Amendment.

Because the legislative history of the Bevill Amendment fails to support and, indeed often contradicts, the court's interpretation of the Amendment, the judgment and opinion of the Court of Appeals must be reversed.

II. This Petition for Certiorari Should be Granted Because the Court of Appeals Violated Petitioners' Rights Under the Administrative Procedure Act as Well as the Principles of Ripeness and Primary Jurisdiction By Deciding That the Six Processing Wastes Are Not "High Volume, Low Hazard."

Even if the Court of Appeals correctly restricted the scope of the Bevill Amendment to only "high volume, low hazard" processing wastes, the court nevertheless erred when it addressed and decided the issue of whether the six processing wastes are in fact high volume, low hazard wastes. This issue should not have been reached by the court at all because there was no final agency decision to review regarding the high volume, low hazard status of the six processing

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[57] 43 Fed. Reg. at 59,016.

wastes. After erroneously reaching that issue, the court further bypassed the administrative process by preempting EPA's expert judgment on these complex and fact-intensive issues; such issues are to be decided in the first instance by EPA, not the Court of Appeals.

A. EPA Has Not Made a Final Determination Whether The Six Processing Wastes Are "High Volume, Low Hazard" Wastes.

The Court of Appeals held that "[s]ince EPA found that those six [processing] wastes are low volume and high hazard wastes, it cannot refuse to list them."[58] The court did not and could not cite any authority for that erroneous assertion because EPA has simply never made such a finding. EPA has addressed the six processing wastes under RCRA on only two occasions. On neither occasion did EPA find that those processing wastes are "high volume, low hazard" wastes.

The first time EPA addressed the six processing wastes was before the Bevill Amendment was enacted, during the 1978-1980 rulemaking in which the Agency initially listed the six wastes under Subtitle C.[59] While the 1978 proposal articulated a high volume, low hazard concept in connection with certain wastes, including mining wastes,[60] the Agency did not take any final action on the basis of that concept.[61] EPA's sole basis for listing the six processing wastes

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[58] *EDF v. EPA II*, 852 F.2d at 1330; App. at 27a.

[59] 45 Fed. Reg. at 33,124; 45 Fed. Reg. at 47,833-34; *see also* 46 Fed. Reg. at 4617-19.

[60] 43 Fed. Reg. at 58,991-92.

[61] *See* 45 Fed. Reg. at 33,122-23.

in 1980 was that they technically qualified for listing under Subtitle C criteria.[62] The 1980 final rule says nothing therefore about the Bevill Amendment status of the six processing wastes because, as the Court of Appeals has correctly held, a waste may not be excluded from the coverage of the Bevill Amendment simply because it technically qualifies for listing under traditional Subtitle C criteria.[63]

The only other time EPA addressed the six processing wastes was in 1985 and 1986 when the Agency proposed to narrow the scope of the Bevill Amendment to "high volume, low hazard" processing wastes and to list the six processing wastes under Subtitle C.[64] EPA also proposed to list the six wastes because the Agency believed that the wastes qualified for listing under traditional Subtitle C criteria and were thought to fall outside the Agency's proposed reinterpretation of the scope of the Bevill Amendment.[65] EPA solicited comments on both proposals and in 1986, based on comments it received and EPA's own analysis, concluded that the proposals had to be withdrawn.[66] However, the Agency never responded to the comments of interested parties concerning the proposed "high volume, low hazard" criteria and the po-

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[62] 45 Fed. Reg. at 33,124; 45 Fed. Reg. at 47,833-34; 46 Fed. Reg. at 4617-4619; *see EDF v. EPA II*, 852 F.2d at 1319; App. at 5a.

[63] *EDF v. EPA I*, 852 F.2d at 1314.

[64] 50 Fed. Reg. at 40,295.

[65] *Id.*

[66] 51 Fed. Reg. at 36,235.

tential status of the six processing wastes under such criteria.[67]

Accordingly, the Court of Appeals erred by concluding that the six processing wastes should be listed as hazardous because EPA has not found them to be low volume, high hazard wastes.

B. Principles of Ripeness and Primary Jurisdiction and the Dictates of the Administrative Procedure Act Required the Court of Appeals to Remand to EPA for Decision the Issue of Whether the Six Wastes are "High Volume, Low Hazard."

Because EPA has never determined whether the six processing wastes are "high volume, low hazard" wastes, the Court of Appeals should have remanded that issue to the Agency rather than deciding the issue itself. By deciding rather than remanding the issue to the Agency, the Court of Appeals violated the Administrative Procedure Act,[68] the doctrines of primary jurisdiction and ripeness, and engaged in unwarranted judicial activism.

In withdrawing the 1985 proposal to limit the coverage of the Bevill Amendment, EPA found that it could not at that time identify a way to distinguish between "high volume, low hazard" processing wastes and other processing wastes.[69] The Agency correctly explained that developing criteria to distinguish between those wastes presents complex factual and policy questions.[70] Under the doctrine of primary

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[67] 51 Fed. Reg. at 36,234-35.

[68] 5 U.S.C. §§ 551-557 and §§ 701-706.

[69] 51 Fed. Reg. at 36,235.

[70] *Id.*; *see also* 53 Fed. Reg. at 41,291-96.

jurisdiction, as the agency that implements the Bevill Amendment, EPA is to decide in the first instance both how to distinguish between "high volume, low hazard" processing wastes and other processing wastes, and whether the six processing wastes are in fact "high volume, low hazard" wastes under that criteria.[71] The Court of Appeals itself acknowledged the Agency's role in that regard by ordering EPA to develop, by means of a new rulemaking, criteria defining "high volume, low hazard" and consequently which processing wastes (other than the six) fall within the yet-to-be-defined criteria.[72]

This Court has repeatedly admonished courts to review only final agency action[73] lest courts entangle themselves in issues beyond the ken of the judiciary.[74] By awaiting final agency action on matters committed initially to administrative agencies, courts also avoid

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[71] *Weinberger v. Bentex Pharmaceuticals, Inc.*, 412 U.S. 645, 654 (1973); *United States v. Western Pacific Railroad Company*, 352 U.S. 59, 64-65 (1956); *Far East Conference v. United States*, 342 U.S. 570, 574-5 (1952).

[72] *EDF v. EPA II*, 852 F.2d at 1331; App. at 30a-31a.

[73] *Pacific Gas & Electric Company v. State Energy Resources Conservation and Development Commission*, 461 U.S. 190, 200 (1983); *Federal Trade Commission v. Standard Oil Company of California*, 449 U.S. 232, 243 (1980); *McKart v. United States*, 395 U.S. 185, 194 (1969); *United States v. Storer Broadcasting Company*, 351 U.S. 192, 199 (1956).

[74] *Weinberger v. Bentex Pharmaceuticals, Inc.*, 412 U.S. at 654 ; *Abbott Laboratories v. Gardner*, 387 U.S. 136, 148-49 (1967); *United States v. Western Pacific Railroad Company*, 352 U.S. at 64-65 (1956); *Far East Conference v. United States*, 342 U.S. at 574-75 (1952).

claims of judicial activism[75] and suggestions that a court has substituted its preferences for that of other branches of government.[76]

The doctrines of ripeness and primary jurisdiction are both intended to prevent premature judicial intervention in an administrative process.[77] The ripeness doctrine requires that an agency decision be final before a court may assert jurisdiction to review it,[78] while the principle of primary jurisdiction is concerned with the proper allocation of jurisdiction between agencies and courts and seeks to ensure that decisions involving an agency's specialized factual and technical expertise are made by that agency in the first instance.[79] Both doctrines are implicated where, as here, a substantive and technical issue, not yet resolved by the agency, has been decided by a court on the merits.

The court erred in not remanding the issue whether the six processing wastes are "high volume, low hazard" processing wastes to the Agency for decision. The Court of Appeals directed EPA to commence a

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[75] *Federal Trade Commission v. Standard Oil Company of California*, 449 U.S. at 243; *McKart v. United States*, 395 U.S. at 194; *United States v. Western Pacific Railroad Company*, 352 U.S. at 64, 68.

[76] *Federal Power Commission v. Idaho Power Company*, 344 U.S. 17, 20 (1952).

[77] *Public Citizen Health Research Group v. Commissioner, Food & Drug Administration*, 740 F.2d 21, 30 (D.C. Cir. 1984).

[78] *Abbott Laboratories v. Gardner*, 387 U.S. at 148-49.

[79] *Weinberger v. Bentex Pharmaceuticals, Inc.*, 412 U.S. at 654; *United States v. Western Pacific Railroad Company*, 352 U.S. at 64-65; *Far East Conference v. United States*, 342 U.S. at 574-75.

rulemaking to develop criteria to define the pivotal term "high volume, low hazard" and apply those yet-to-be-defined criteria to all processing wastes but the six; the court should have directed EPA to apply those criteria to the six wastes as well. One consequence of the court's failure to do so is that the Bevill Amendment status of those six processing wastes has been decided without any consideration of industry's 1985 comments to EPA on that complex and technical issue. Another consequence is that that decision was made without judicial consideration of any EPA response to those comments. The court's decision violates petitioners' rights under the Administrative Procedure Act to have the Agency consider all relevant factors before making a determination.[80] The court's decision also effectively deprives petitioners of their rights under both the Administrative Procedure Act[81] and RCRA[82] to have the determination that the six processing wastes are not in fact "high volume, low hazard" wastes under the Bevill Amendment reviewed by a court on a full and fair administrative record.

Moreover, because the Court of Appeals made its own decision that the six processing wastes will not qualify under EPA's forthcoming criteria for identifying "high volume, low hazard" processing wastes, the court violated the principles of ripeness and primary jurisdiction. This unwarranted judicial activism

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[80] 5 U.S.C. § 553(c); *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 416 (1971).

[81] 5 U.S.C. § 706.

[82] 42 U.S.C. § 6976.

has preempted EPA's expert judgment of the Bevill Amendment's application to the six processing wastes.

CONCLUSION

For the foregoing reasons, this Petition for Certiorari should be granted.

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APPENDIX

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APPENDIX A

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued December 11, 1987 Decided July 29, 1988

No. 86-1584

ENVIRONMENTAL DEFENSE FUND,
Petitioner

v.

ENVIRONMENTAL PROTECTION AGENCY and
LEE M. THOMAS, ADMINISTRATOR,
Respondents

ALUMINUM ASSOCIATION, INCORPORATED,
AMERICAN MINING CONGRESS,
IDAHO MINING ASSOCIATION,
and KENNECOTT,
Intervenors

No. 86-1691

HAZARDOUS WASTE TREATMENT COUNCIL,
Petitioner

v.

ENVIRONMENTAL PROTECTION AGENCY and
LEE M. THOMAS, ADMINISTRATOR,
Respondents

AMERICAN MINING CONGRESS,
THE FERTILIZER INSTITUTE, and
ALUMINUM ASSOCIATION, INC.,
Intervenors

Petitions for Review of an Order of the
Environmental Protection Agency

Robert V. Percival, for Environmental Defense Fund, and *David R. Case,* for Hazardous Waste Treatment Council, with whom *Alan S. Miller, Debra Hirshkowitz* (student counsel) and *Jan Wagner* (student counsel) were on the brief, for petitioners.

Margaret B. Silver, Attorney, Environmental Protection Agency, with whom *Scott A. Schachter,* Attorney, Department of Justice and *Roger J. Marzulla,* Acting Assistant Attorney General, were on the brief, for respondents.

John N. Hanson, with whom, *Donald J. Patterson, Jr.; Edward M. Green, Roderick T. Dwyer,* for American Mining Congress; *Richard A. Flye, Christian Volz, Carole Stern,* for The Fertilizer Institute; *Alan S. Ward, Jeffrey S. Holik,* for Aluminum Association Inc.; *Alfred V.J. Prather, Kurt E. Blase,* for Kennecott; and *Robert M. Tyler, Jr.* for Idaho Mining Association, were on the joint brief for intervenors American Mining Congress, et al. *William R. Baker, III* and *Adrienne S. Wieand* also entered appearances for intervenor Aluminum Association, Inc., in No. 86-1691.

Before: MIKVA and BUCKLEY, *Circuit Judges,* and OBERDORFER*, *District Judge.*

Opinion for the Court filed by *District Judge* OBERDORFER.

LOUIS F. OBERDORFER, *District Judge:* In these consolidated cases, petitioners Environmental Defense Fund ("EDF") and Hazardous Waste Treatment Council ("HWTC") seek review of a final decision by the Administrator of the Environmental Protection Agency ("EPA" or "the Agency") withdrawing a proposed reinterpretation of the mining waste exclusion contained in section 3001(b)

*Of the United States District Court for the District of Columbia, sitting by designation pursuant to 28 U.S.C. § 292(a).

(3) (A) (ii) of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. § 6921 (b) (3) (A) (ii). That section, known as the "Bevill Amendment," suspends certain mining wastes from regulation under the provisions governing hazardous waste treatment and disposal contained in Subtitle C of RCRA. 42 U.S.C. §§ 6921-6931. The EPA's proposed reinterpretation of the Bevill Amendment was published in the Federal Register on October 2, 1985. 50 *Fed. Reg.* 40,292 (1985). The Agency's final action withdrawing the proposed reinterpretation was published on October 9, 1986. 51 *Fed. Reg.* 36,233 (1986).

Based on a careful review of the EPA's decision and the arguments advanced by the parties, we conclude that the EPA's decision to withdraw the proposed reinterpretation in its entirety without seeking additional time to refine it was arbitrary and capricious and contrary to law because it left six hazardous smelter wastes unregulated under Subtitle C and reinstated an overbroad interpretation of the Bevill Amendment. Accordingly, we grant the petition for review and order EPA to relist six hazardous smelter wastes and complete the rest of its statutory responsibilities under Subtitle C of RCRA.

I. BACKGROUND

Congress enacted the Resource Conservation and Recovery Act in 1976. Pub. L. No. 94-580, 90 Stat. 2795. Subtitle C of RCRA, 42 U.S.C. §§ 6921-6931, established a comprehensive "cradle to grave" regulatory scheme governing the treatment, storage, and disposal of hazardous wastes. Section 3001(a) of RCRA, 42 U.S.C. § 6921 (a), directs EPA to promulgate regulations identifying the characteristics of hazardous waste and listing particular hazardous wastes which would be subject to regulation under Subtitle C. In promulgating those regulations, EPA was directed to take into account criteria including "toxicity, persistence, and degradability in nature, potential for accumulation in tissue, and other related factors such as

flammability, corrosiveness, and other hazardous characteristics." 42 U.S.C. § 6921(a). Section 3004 of RCRA, 42 U.S.C. § 6924, directs EPA to promulgate standards required of facilities engaged in the treatment, storage, and disposal of hazardous waste.

Subtitle D of RCRA, 42 U.S.C. §§ 6941-6949, also enacted in 1976, addresses solid wastes that are not hazardous. Under Subtitle D, states develop solid waste management plans that are based on federal guidelines and are submitted to EPA for approval. 42 U.S.C. §§ 6942-6947.

Section 8002(f) of RCRA, 42 U.S.C. § 6982(f), directs the EPA to conduct a comprehensive study of the adverse environmental effects of "solid wastes from active and abandoned surface and underground mines," including examination of alternative methods of disposal to mitigate adverse environmental effects.

On December 18, 1978, EPA proposed regulations to govern the management of hazardous wastes under RCRA Subtitle C. 43 *Fed. Reg.* 58,946 (1978). EPA proposed to subject certain "special wastes," which were generated in "very large volumes" but were thought to pose "relatively low" hazards, to fewer regulatory requirements than other hazardous wastes because they were regarded as "not amenable to the control techniques" proposed for hazardous waste treatment, storage, and disposal. *Id.* at 58,992. Wastes from the "extraction, beneficiation, and processing of ores and minerals" were classified as "special wastes." *Id.* at 59,016. Other "special wastes" included cement kiln dust waste, utility waste such as bottom ash waste and fly ash waste, waste from phosphate mining such as overburden and slag, overburden and waste rock from uranium mining, and gas and oil drilling muds and oil production brines. *Id.* at 58,991, 59,015-16. EPA noted that it had "very little information on the composition,

characteristics, and the degree of hazard posed by these wastes . . ." *Id.* at 58,991.

On May 19, 1980, EPA promulgated final regulations identifying the characteristics of hazardous waste, and listing specific hazardous wastes as subject to Subtitle C regulation. The "special wastes" concept was not included in the final regulations, however, because EPA had revised its criteria for defining hazardous waste and thus expected fewer of the "special wastes" to be classified as hazardous and because the promulgated management standards were more flexible than those originally proposed in 1978. 45 *Fed. Reg.* 33,174 (1980).

The final regulations were to take effect on November 19, 1980. *Id.* at 33,084. Among the wastes listed in these regulations as hazardous and thus subject to regulation under Subtitle C were three hazardous waste streams from primary metal smelting operations, namely, copper blowdown wastes, lead impoundment solids, and zinc wastewater sludges. *Id.* at 33,124. Three more hazardous wastes from metal smelting operations were listed on July 16, 1980, including spent potliners from primary aluminum reduction ("aluminum potliners"), and emission control dust or sludge from the production of ferrochromium and ferrochromium-silicon. 45 *Fed. Reg.* 47,832-34 (1980). EPA determined that these wastes "pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed." *Id.* at 47,832.

The Bevill Amendment

On October 21, 1980, just before the Subtitle C regulations were to take effect, Congress enacted the Solid Waste Disposal Act Amendments of 1980, Pub. L. No. 96-482, 94 Stat. 2334, which included the "Bevill Amendment," named after its sponsor Congressman Bevill of Alabama. The Bevill Amendment added two key provisions to RCRA. First, in addition to extending the deadline on

the study of mining wastes required by § 8002(f) of RCRA, it added § 8002(p) which required the EPA to conduct a comprehensive study of the adverse environmental and health effects, if any, of "the disposal and utilization of solid waste from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from uranium mining." 42 U.S.C. § 6982(p). The EPA was also directed to study the adverse health and environmental effects of several other types of wastes characterized as "special wastes" by EPA in 1978, including fly ash waste, bottom ash waste, slag waste, and cement kiln dust waste. *Id.* §§ 6982(n), (o). The studies were to be completed by October 21, 1983. The § 8002(p) study of wastes from "the extraction, beneficiation, and processing of ores and minerals" was to include an analysis of:

> (1) the source and volumes of such materials generated per year;
>
> (2) present disposal and utilization practices;
>
> (3) potential danger, if any, to human health and the environment from the disposal and reuse of such materials;
>
> (4) documented cases in which danger to human health or the environment has been proved;
>
> (5) alternatives to current disposal methods;
>
> (6) the costs of such alternatives;
>
> (7) the impact of those alternatives on the use of phosphate rock and uranium ore, and other natural resources; and
>
> (8) the current and potential utilization of such materials.

42 U.S.C. § 6982(p).

Second, the Bevill Amendment required EPA to defer, until at least six months after completion of the studies,

the imposition of Subtitle C regulation on "[s]olid waste from the extraction, beneficiation, and processing of ores and minerals" and on several other categories of waste including fly ash waste and cement kiln dust waste. 42 U.S.C. § 6921(b) (3) (A). However, not later than six months after the study of mining wastes was completed, EPA was required to determine whether regulation of those wastes under Subtitle C of RCRA was warranted. In the words of the statute:

> the Administrator shall, after public hearings and opportunity for comment, either determine to promulgate regulations under this subchapter for . . . [wastes from the extraction, beneficiation, and processing of ores and minerals] or determine that such regulations are unwarranted. The Administrator shall publish his determination, which shall be based on information developed or accumulated pursuant to such study, public hearings, and comment, in the Federal Register accompanied by an explanation and justification of the reasons for it.

42 U.S.C. § 6921 (b) (3) (C).

In order to incorporate the Bevill Amendment's exclusion of mining wastes from regulation under Subtitle C, EPA published an amendment to its hazardous waste regulations on November 19, 1980. 45 *Fed. Reg.* 76,618 (1980). The amended regulatory language tracks the statutory language in excluding solid waste from the "extraction, beneficiation and processing of ores and minerals" from regulation under Subtitle C. *Id.* at 76,620. EPA went further and announced that as a "temporary accommodation of the requests" of the mining industry it would interpret the mining waste exclusion as applying to solid waste from the "exploration, mining, milling, *smelting* and *refining* of ores and minerals." *Id.* at 76,619 (emphasis added). In so doing, EPA acknowledged that such a broad interpretation of the exclusion might not be consistent with Congress's

intent in enacting the Bevill Amendment. EPA promised "over the next 90 days" to study the legislative history and consider public comments, suggesting that the exclusion might be narrowed in a subsequent rulemaking action. *Id.* at 76,618. In particular:

> EPA questions whether Congress intended to exclude (1) wastes generated in the smelting, refining and other processing of ores and minerals that are further removed from the mining and beneficiation of such ores and minerals.

Id. at 76,619. However, having interpreted the exclusion as extending to smelting operations, EPA "suspended" its listing under Subtitle C of three of the hazardous waste streams from smelting, namely copper blowdown waste, lead impoundment solids, and zinc treatment sludges. *Id.*; 46 *Fed. Reg.* 27,473 (1980). Listing of the other three hazardous smelter wastes was "suspended temporarily" on January 16, 1981, including aluminum potliners which the EPA acknowledged to be clearly hazardous. 46 *Fed. Reg.* 4615 (1981). With respect to aluminum potliners, EPA stated:

> The Agency has no doubt that this waste should be listed as a hazardous waste, since it contains high concentrations of cyanide and has been involved in damage incidents. The lack of comment on the listing reflects further consensus that these wastes are indeed hazardous.

Id. However, the EPA excluded the waste "temporarily" from control under Subtitle C of RCRA based on its broad interpretation of the Bevill Amendment. At the same time, EPA again acknowledged that it would reconsider the proper scope of the Bevill exclusion in the future, and "may amend this exclusion to bring this waste . . . back under Subtitle C control." *Id.*

In 1984, Congress enacted the Hazardous and Solid Waste Amendments of 1984, Pub. L. No. 98-616, 98 Stat. 3221. In addition to strengthening the RCRA regulatory regime in a variety of ways, the 1984 Amendments added subsection 3004(x), 42 U.S.C. § 6924(x), which explicitly gives EPA flexibility in fashioning Subtitle C standards for wastes from the extraction, beneficiation and processing of ores and minerals. EPA was given the authority to modify various of the standards for hazardous waste disposal under Subtitle C

> to take into account the special characteristics of such wastes, the practical difficulties associated with implementation of such requirements, and site-specific characteristics, including but not limited to the climate, geology, hydrology and soil chemistry at the site, so long as such modified requirements assure protection of human health and the environment.

42 U.S.C. § 6924(x).

Concerned Citizens of Adamstown v. EPA

EPA could not make a determination about whether to regulate mining wastes under Subtitle C until it completed the study required by the Bevill Amendment. The mining waste studies mandated by sections 8002(f) and (p) of RCRA were to be completed by October 21, 1983. EPA missed that statutory deadline, however, and had still not completed the studies when, on September 28, 1984, the EDF and two citizens groups brought suit against the Agency for failure to complete the studies in the time prescribed by law and for failure to make the regulatory determination required by the Bevill Amendment. *Concerned Citizens of Adamstown v. EPA,* No. 84-3041 (D.D.C. Aug. 21, 1985). The plaintiffs in that case also sued EPA for its failure to relist aluminum potliners as a hazardous waste subject to regulation under Subtitle C of RCRA. Plaintiffs challenged EPA's failure, in a timely fashion, *either* to relist the aluminum potliners after making a de-

termination that they fall outside the scope of the mining waste exclusion *or* to include those wastes in the § 8002(p) study.

In the *Adamstown* case, EPA indicated that it intended to reinterpret the mining waste exclusion to remove certain smelting and refining wastes (including spent potliners) from its scope. Since those wastes would then be subject to Subtitle C regulation, they would not be included in EPA's study of mining wastes. The court awarded summary judgment to the plaintiffs, and ordered EPA to abide by a schedule that the Agency had proposed to the Court. Specifically, the Court ordered EPA to propose its reinterpretation of the mining waste exclusion by September 30, 1985, to complete the studies mandated by §§ 8002(f) and (p) of RCRA by December 31, 1985, and to take final action on the proposed reinterpretation by September 30, 1986.[1]

EPA's Proposed Reinterpretation of the Bevill Exclusion

In compliance with the court-ordered timetable established in *Adamstown*, EPA published its proposed reinterpretation of the Bevill mining waste exclusion on October 2, 1985. 50 *Fed. Reg.* 40,292 (1985). EPA proposed to narrow the scope of its previous interpretation as it applied to solid wastes from "processing ores and minerals." The Agency's proposed reinterpretation was based on a careful consideration of the legislative history of the Bevill Amendment. As EPA acknowledged:

> [I]t has become increasingly clear that EPA['s] current interpretation does not best serve the Congress's objective in enacting the Bevill Amendment. Instead it has had the effect of excluding a broad range of wastes, many of which are hazardous, and are often

[1] The ruling in *Adamstown* was not appealed, nor has either party sought reconsideration of the matter by the district court.

> generated many steps beyond the initial extraction and beneficiation of ores and minerals.

Id. at 40,293. EPA reviewed the legislative history and concluded that it had been "incorrect" in 1980 "in interpreting the mining waste exclusion as encompassing all wastes from primary smelting and refining." *Id.* at 40,294.

EPA concluded that Congress intended the Bevill exclusion to apply to the types of high volume, low hazard wastes deemed "special wastes" in the Agency's 1978 proposed regulations. *Id.* Therefore, EPA proposed to interpret the term "processing" in the mining waste exclusion to apply only to four processing wastes that met the high volume, low hazard standard, namely red and brown muds from bauxite refining, phosphogypsum from phosphoric acid plants, and slag from primary metal smelters and phosphorus reduction facilities. *Id.* at 40,294, 40,301. Of these large-volume processing wastes that would remain excluded from regulation under Subtitle C of RCRA, annual disposal of phosphogypsum from phosphoric acid plants is approximately 47 million metric tons; slag disposal from primary metal smelters is over 4 million metric tons; slag from phosphorous reduction is over 3 million metric tons; and mud from bauxite refining is approximately 2 million metric tons. *Id.* at 40,294. EPA noted that these volumes are comparable to the other wastes deemed "special wastes" in the 1978 proposed regulations, such as the estimated 66 million metric tons of utility waste generated per year and the 12 million metric tons of cement kiln dust. *Id.* at 40,294. The six hazardous smelting wastes, in contrast, are substantially smaller in volume. *Id.* at 40,296, Table 3. These volumes are comparable to or smaller than the quantities of hazardous waste generated by other industries already subject to regulation under Subtitle C. *Id.* at 40,294.

Under EPA's proposed reinterpretation, the Bevill exclusion would not longer apply to the six hazardous smelter

wastes previously suspended from regulation following EPA's broad interpretation in 1980 that the Bevill exclusion covered all wastes from primary smelting and refining. The EPA thus proposed to relist those six smelting wastes as hazardous and subject to regulation under Subtitle C of RCRA. *Id.* at 40,295.

EPA solicited public comment on its proposed reinterpretation and invited commenters to identify and other processing wastes, besides the four large-volume processing muds and slags, that met the "special waste" criteria and thus fell within the mining waste exclusion. *Id.* at 40,294-95.

EPA's Study of Mining Wastes

Meanwhile, the EPA completed its § 8002 study of mining wastes and, on December 31, 1985, submitted a Report to Congress on Wastes from the Extraction and Beneficiation of Metallic Ores, Phosphate Rock, Asbestos, Overburden from Uranium Mining and Oil Shale ("Report to Congress"). The report discussed extraction and beneficiation wastes but did not address processing wastes, which were the subject of EPA's proposed reinterpretation of the Bevill Amendment. In its report, EPA found that 1.3 billion metric tons of waste were generated by extraction and beneficiation in 1985, five percent of which (61 million metric tons) exhibit the hazardous characteristics of corrosivity and EP (extraction procedure) toxicity. *Id.* at ES 17. EPA estimated, moreover, that adding wastes with high acid formation potential, wastes containing asbestos and cyanide, and radioactive wastes increases the total of potentially hazardous waste generated by the nonfuel mining industry to 755 million metric tons a year. *Id.* at ES 12-14, 17. The Report goes on to discuss existing waste management practices as well as the economic costs of regulating mining wastes under Subtitle C under various scenarios.

EPA's Regulatory Determination

Following a public comment process, EPA published its "regulatory determination" concerning wastes from the extraction and beneficiation of ores and minerals on July 3, 1986. 51 *Fed. Reg.* 24,496 (1986). The EPA determined that none of the extraction and beneficiation wastes studied should be subject to regulation under Subtitle C of RCRA. While the EPA acknowledged that some of these mining wastes were clearly hazardous, it believed that "several aspects of EPA's current hazardous waste management standards are likely to be environmentally unnecessary, technically infeasible, or economically impractical when applied to mining waste." *Id.* Although EPA acknowledged that existing law provided it with flexibility to modify hazardous waste standards applied to mining wastes, EPA stated that

> there are substantial questions about whether the flexibility inherent in the statute coupled with the Agency's current data on these wastes provide a sufficient basis for EPA to develop a mining waste program under Subtitle C that addresses the risks presented by mining waste while remaining sensitive to the unique practical demands of mining operations.

Id. Instead, EPA indicated its intention to develop a regulatory program for these mining wastes under Subtitle D of RCRA, which governs non-hazardous solid wastes. *Id.* at 24,501. EPA's determination not to regulate these mining wastes under Subtitle C is challenged in the companion case, *Environmental Defense Fund v. EPA*, No. 86-1528.

EPA's Withdrawal of its Reinterpretation of the Bevill Amendment

On October 9, 1986, a year after EPA published its proposed reinterpretation of the scope of the Bevill Amendment, the Agency announced that it was *withdraw-*

ing its proposed reinterpretation. 51 *Fed. Reg.* 36,233 (1986). The Agency explained that it was withdrawing the reinterpretation because the terms "high volume" and "low hazard" had not been quantified in the proposal, so that the Agency was unable to determine the status of additional wastes nominated by commenters as "special wastes." *Id.* at 36,234. While it did not view the "high volume, low hazard" standard as inherently unsound, EPA pointed to various definitional problems it faced in determining how to group and classify wastes. The Agency concluded that its proposal had to be withdrawn because it failed to set out "practically-applicable criteria for distinguishing processing from non-processing wastes." *Id.* at 36,235.

In withdrawing its proposed reinterpretation, the EPA reaffirmed its 1980 interpretation of the Bevill exclusion as "a permissible, though by no means the sole permissible, interpretation" of the statute. *Id.* Moreover, although EPA never contended that the six hazardous smelter wastes were even arguably "high volume, low hazard" wastes, EPA withdrew its proposal to relist those wastes so that they would continue to enjoy the protection of the Bevill exclusion. As EPA explained: "These wastes, under the current interpretation, are deemed to be derived from processing of ores and minerals and so are excluded from regulation under Subtitle C until the requisite section 8002 studies are completed." *Id.* EPA thus failed to meet the requirements of the court order in *Adamstown* with respect to those smelting wastes. They were not included in the § 8002 (p) study submitted to Congress on December 31, 1985, a deadline long since passed, because EPA had proposed to exclude them from the scope of the Bevill Amendment and subject them to regulation under Subtitle C. EPA's withdrawal of its proposed reinterpretation, however, left those wastes both unregulated and unstudied as of October 1986. Instead, the EPA indicated that it would continue "to grapple with the problem" of defining the

contours of the mining waste exclusion and would proceed with "additional section 8002 studies addressing processing wastes," including the six hazardous smelter wastes. *Id.*

Combustion Residuals From Industrial Furnaces

On November 29, 1985, shortly after the EPA proposed its reinterpretation of the Bevill Amendment but before that reinterpretation was withdrawn, the Agency issued final regulations in a separate rulemaking proceeding governing the burning of hazardous waste fuel and used oil fuel in utility boilers and industrial furnaces. 50 *Fed. Reg.* 49,164 (1985). In a footnote to the preamble to those regulations, EPA indicated that the Bevill mining waste exclusion "may apply to certain industrial furnaces burning hazardous waste or used oil." *Id.* at 49,190 n.89. Any such exclusions would apply "pending development of the boiler and industrial furnace permit standards" regardless of whether or not the furnaces burned hazardous waste or used oil for energy recovery. *Id.*

On May 6, 1987, EPA proposed additional regulations which establish standards for utility boilers and industrial furnaces that burn fuels derived from hazardous wastes. 52 *Fed. Reg.* 16,982 (1987). EPA has solicited comments from the public regarding those proposed burning regulations. Under the May 1987 proposed regulations, the Bevill exclusion would not apply to hazardous wastes burned in smelter furnaces from "material recovery" if "a majority of material feed processed in a device is not an ore or mineral." *Id.* at 17,012. In such cases, "resulting residues are not deemed to be from processing an ore or mineral." *Id.* Nor would the Bevill exclusion apply to combustion residuals from smelting furnaces which burn "secondary materials (rather than ore concentrate)" as the majority of their feedstock. *Id.* at 17,012-13.

EPA's decision to withdraw its proposed reinterpretation and its proposed relisting of the six hazardous smelting wastes is challenged here by the Environmental

Defense Fund ("EDF") and the Hazardous Waste Treatment Council ("HWTC"). Petitioners also challenge EPA's exemption of ash from the burning of hazardous waste in smelter furnaces from regulation under Subtitle C of RCRA.

II. JURISDICTIONAL ISSUES

EPA concedes that the Court has jurisdiction to review the Agency's decision in 1986 to withdraw its proposed reinterpretation of the Bevill mining waste exclusion. Under *Montana v. Clark*, 749 F.2d 740, 744 (D.C. Cir. 1984), *cert. denied*, 474 U.S. 919 (1985), "an agency decision not to amend long-standing rules after a notice and comment period is reviewable agency action." *See also Natural Resources Defense Council ("NRDC") v. EPA*, 824 F.2d 1146, 1150 (D.C. Cir. 1987). EPA contends, however, that petitioners are time-barred from challenging the Agency's original 1980 interpretation of the Bevill exclusion because section 7006(1) of RCRA requires that petitions for review of final agency action be filed within ninety days. 42 U.S.C. § 6976(a) (1). EPA points to *NRDC v. EPA*, *supra*, as support for its argument that review of its withdrawal of the proposed reinterpretation does not provide an opportunity for a substantive attack on the underlying interpretation established in 1980. Petitioners also invoke *NRDC v. EPA*, replying that their challenge is not time-barred because they seek review of EPA's 1986 decision to withdraw its proposed reinterpretation of the mining waste exclusion, whereby EPA perpetuated by default an interpretation that conflicts with the statute and legislative history.

In *NRDC v. EPA*, this Court rejected a claim that petitioners' challenge to EPA's 1985 decision to withdraw amendments to the vinyl chloride emission standards was actually a "back-door" challenge to regulations promulgated in 1976. 824 F.2d at 1150. The Court found that petitioners were specifically challenging EPA's reliance on

cost and technological feasibility in its withdrawal of the proposed amendments in 1985. *Id.* In so characterizing the petitioners' challenge, the Court examined the nature of their argument as well as the type of relief requested. Because the petitioners' challenge focused on the withdrawal of proposed amendments to the vinyl chloride emission standards, as distinguished from the original validity of the regulations, it was not time-barred. *Id.*

We conclude that petitioners' challenge in the case before us is not a "back-door" challenge to EPA's original 1980 interpretation of the Bevill exclusion, but a timely, front-door challenge to EPA's 1986 *withdrawal* of its 1985 proposed reinterpretation. In reviewing petitioner's challenge to EPA's withdrawal of its reinterpretation, which is clearly not time-barred, we must assess the reasonableness of the justification offered and the factors relied upon by EPA in making that decision. *See NRDC v. EPA*, 824 F.2d at 1150. Necessarily, we cannot avoid consideration of whether the EPA acted in a manner arbitrary and capricious and contrary to law when it made its October 1986 withdrawal decision, which reinstated by default a broad interpretation of the Bevill mining waste exclusion.

To the extent that our review of EPA's 1986 decision necessarily raises the issue of whether the broad 1980 interpretation of the Bevill exclusion is inconsistent with Congressional intent, it is not time-barred. The statutory period for review of that interpretation was effectively renewed by the EPA when it decided in 1986 to withdraw its proposed 1985 reinterpretation in its entirety and thus to reiterate and finalize its 1980 interpretation of the scope of the Bevill mining waste exclusion. This is clear from the factual posture in which this case arises. EPA was equivocal in 1980 when it offered its "temporary" interpretation of the Bevill Amendment as an "accommodation" of the requests of the mining industry. 45 *Fed. Reg.* 76,618 (1980). EPA's tentative 1980 interpretation was not immediately challenged, and EPA promised that:

> [O]ver the next 90 days, [EPA] intends to carefully examine the legislative history of the statutory amendment and consider the public comments being solicited by this action.

Id. EPA indicated further that it would likely narrow the scope of the Bevill exclusion in a future rulemaking proceeding. *Id.* The "90 days" stretched into five years, however, and the EPA only offered its proposed reinterpretation in October 1985 in the face of a court-ordered deadline. EPA finally withdrew that reinterpretation in October 1986, thereby transforming its "temporary" 1980 interpretation into a final decision and subjecting that interpretation to judicial review.

Functionally, the EPA's 1980 interpretation is analogous to a preliminary injunction. While a party may appeal a preliminary injunction, a failure to do so does not foreclose an appeal of a final injunction. EPA's decision in 1986 to reaffirm its "tentative" 1980 interpretation finalized that interpretation and renewed the time for obtaining judicial review. *See Geller v. FCC*, 610 F.2d 973, 977-78 (D.C. Cir. 1979) (statutory period for review renewed by later events). Hence, we are not time-barred from considering whether the broad interpretation of the Bevill Amendment that EPA decided to reaffirm by default in 1986 is inconsistent with Congressional intent.[2]

III. THE MERITS

Petitioners contend that EPA's withdrawal of its proposed reinterpretation of the Bevill Amendment was ar-

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[2] It should also be noted that there is authority in this Circuit that "a petitioner's contention that a regulation should be amended or rescinded because it *conflicts with the statute* from which its authority derives is reviewable outside of a statutory limitations period." *National Labor Relations Board Union v. Federal Labor Relations Authority*, 834 F.2d 191, 196 (D.C. Cir. 1987). Review in such a situation would follow the framework laid down by the Supreme Court in *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837 (1984).

bitrary and capricious and contrary to law because it was not based on EPA's view of the proper scope of the amendment but rather on EPA's refusal to determine the precise contours of the exclusion. Petitioners stress that in withdrawing its proposed reinterpretation in 1986, the EPA did not disaffirm its 1985 interpretation of Congressional intent: that is, that Congress intended the Bevill exclusion to apply only to "high volume, low hazard" "special wastes." On the contrary, petitioners argue that the Agency's sole justification for withdrawing its reinterpretation was that it had not yet defined the full contours of the proposed "high volume, low hazard" standard. Petitioners argue further that EPA knew, in any event, that the six hazardous smelter wastes were not properly within the scope of the Bevill exclusion, regardless of the status of any additional waste streams.

EPA responds that its withdrawal of the proposed reinterpretation was reasonable and supported by the record. In articulating the "high volume, low hazard" standard, EPA identified four wastes that it thought met this standard, and proposed to remove all other "processing" wastes from the Bevill exclusion. When commenters claimed that other wastes fit the "high volume, low hazard" standard, EPA found that it could not assess those claims because the Agency had not quantified or defined the terms "high volume" or "low hazard" in its proposal. EPA was required by the schedule established in *Adamstown* to take final action on its proposed reinterpretation by September 30, 1986. EPA argues that its decision to withdraw its reinterpretation was not arbitrary and capricious because the proposal was imprecise and could not be refined in time to meet the district court's deadline. *See* Respondents' Brief at 13, 16, 21-22. In support of this claim, EPA elaborates various problems with its proposed interpretation, including definitional and data problems. *Id.* at 17-22. EPA contends, moreover, that its reaffirmation of the 1980

interpretation is a permissible construction of the mining waste exclusion. *Id.* at 32-41.

For the reasons discussed below, we conclude that EPA's decision to withdraw its proposed reinterpretation in its entirety was arbitrary and capricious and contrary to law because it left unlisted the six hazardous smelter wastes and reaffirmed an impermissibly overbroad interpretation of the Bevill Amendment. EPA did not seek an extension of time from the district court within which to refine its reinterpretation of the Bevill Amendment. Instead, the Agency abandoned its effort to formulate an interpretation of the Bevill Amendment consistent with Congressional intent. The fact that the EPA did not quantify the full contours of the "high volume, low hazard" standard in its 1985 proposal is not a rational justification for withdrawing the proposal to relist the six hazardous smelter wastes, which are not properly included within the scope of the Bevill Amendment. Nor is it a reason for failing to further refine the "high volume, low hazard" standard in a timely manner and either *exclude* additional processing wastes from the scope of the Bevill Amendment *or* complete the studies and make the regulatory determination mandated by statute.

A. *The Standard of Review*

As provided in § 7006(1) of RCRA, 42 U.S.C. § 6976 (a) (1), the EPA decisions challenged here are subject to review in accordance with the Administrative Procedure Act ("APA"), 5 U.S.C. §§ 701-706. The APA provides that a reviewing court shall set aside agency actions found to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706 (2)(A). While the "scope of review under the 'arbitrary and capricious' standard is narrow," the agency must "articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.' " *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual*

Auto. Ins. Co., 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962). Moreover, if the agency "does not reasonably accommodate the policies of a statute or reaches a decision that is 'not one that Congress would have sanctioned,' . . . a reviewing court must intervene to reinforce the policy decisions made by Congress." *Natural Resources Defense Council v. Herrington*, 768 F.2d 1355, 1383 (D.C. Cir. 1985) (citations omitted).

Judicial review of EPA's interpretation of the Bevill Amendment is governed by the framework set out in *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837 (1984). We must first consider whether Congress "has directly spoken to the precise question at issue." *Id.* at 842. As the *Chevron* Court declared:

> If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.

Id. at 842-43. If Congress is silent on the issue, however, or its intent is ambiguous, "the question for the court is whether the agency's answer is based on a permissible construction of the statute." *Id.* at 843. *See also I.N.S. v. Cardoza-Fonseca*, 107 S.Ct. 1207 (1987).

In ascertaining the intent of Congress, the reviewing court should look first to the language and structure of the statute itself. "If the answer is not yielded by the statute, then the court is to look to secondary indicia of intent, such as the measure's legislative history." *American Mining Congress v. EPA*, 824 F.2d 1177, 1182 (D.C. Cir. 1987).

B. *The Bevill Mining Waste Exclusion*

1. *The Statutory Language and Structure of the Mining Waste Exclusion*

The Bevill Amendment suspends solid waste from the "extraction, beneficiation, and processing of ores and min-

erals" from regulation under Subtitle C of RCRA until EPA has completed certain studies and made a regulatory determination. 42 U.S.C. § 6921(b) (3) (A) (ii). Although the first step in statutory interpretation is usually to discern "the ordinary meaning of the words used," *Securities Industry Ass'n v. Board of Governors*, 468 U.S. 137, 149 (1984), the words "waste from . . . processing of ores and minerals" do not convey a self-evident, accepted meaning. EPA conceded as much when it concluded in 1985 that the term "processing" had no standard definition or plain meaning. 50 *Fed. Reg.* 40,293 (1985).

At the same time, the structure of the Bevill Amendment suggests that Congress intended to single out high-volume "special wastes" for regulatory suspension when it excluded "solid waste from the extraction, beneficiation and processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore." Solid waste from the *extraction* of ores and minerals consists of very large volumes of overburden and waste rock excavated during mining. Solid waste from the *beneficiation* of ores and minerals includes large volumes of crushed rock tailings. *See* EPA's Report to Congress at ES 4-6. Congress also expressly included "rock and overburden" from the mining of uranium ore. The structure of the Bevill Amendment suggests that the term "solid waste from the . . . processing of ores and minerals" should be interpreted in a manner consistent with the concept of large volume wastes. Such an interpretation is reinforced by the fact that the other wastes singled out for exclusion in the Bevill Amendment are also large volume wastes, namely "[f]ly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels" and "[c]ement kiln dust waste." 42 U.S.C. §§ 6921(b) (3) (A) (i), (iii). *See* 43 *Fed. Reg.* 58,992 (1978); 50 *Fed. Reg.* 40,294 (1985) (estimated volumes of these wastes).

The statutory structure thus suggests that Congress intended the exclusion to apply to wastes generated in large volumes. However, because the statutory term "processing" does not on its face admit of a standard definition, and because the precise meaning of that term is not fully apparent from the structure of the statute, we must turn to the legislative history of the Bevill exclusion for more precise guidance on Congressional intent.

2. *The Legislative History of the Bevill Amendment*

The legislative history of the Bevill Amendment establishes that the key to understanding Congress's intent is the concept of "special waste" articulated in the regulations proposed by EPA on December 18, 1978 following the enactment of RCRA. 43 *Fed. Reg.* 58,991-92 (1978); 50 *Fed. Reg.* 40,293-94 (1985). In the preamble to those regulations, EPA explained that it intended to treat certain "special wastes" differently because they were generated in very large volumes, were thought to pose a relatively low hazard, and were not necessarily amenable to the management standards proposed for hazardous waste treatment, storage, and disposal facilities. These "special wastes" included "cement kiln dust, utility waste (fly ash, bottom ash, and scrubber sludge), phosphate mining and processing waste, uranium and other mining waste, and gas and oil drilling muds and oil production brines." 43 *Fed. Reg.* 58,991 (1978).

The Bevill Amendment was a distinct, self-contained amendment to the RCRA statute. It was proposed on the House floor by Congressman Bevill and was adopted after a detailed explanation of its purpose and scope by Congressman Bevill and other supporters. The Conference Committee Report accompanying the 1980 amendments to RCRA adopted the Bevill Amendment with only a minor modification pertaining to uranium overburden. The Conference Report states clearly that the Bevill Amendment suspends regulation under Subtitle C of utility wastes as

well as "all other wastes . . . in a category designated as 'special wastes' in regulations proposed by the Agency under Subtitle C on December 18, 1978." H.R. Conf. Rep. No. 1444, 96th Cong., 2d Sess. 32 (1980).

Congressman Bevill explained the purpose of his amendment on the House floor:

> [I]t would require EPA to defer imposition of regulatory requirements on the disposal of the waste by-product of fossil fuel combustion, of discarded mining materials and of cement kiln dust waste until after EPA has completed studies to determine whether, if at all, these materials present any hazard to human health or the environment.

26 *Cong. Rec.* 3361 (1980). He then referred specifically to EPA's 1978 proposed regulations on "special wastes" to which his amendment was a response:

> EPA has itself recognized that it has "very little information on the composition, characteristics, and degree of hazard posed by these wastes." In its announcement, printed in the Federal Register of December 18, 1978, EPA announced it did not have data on the effectiveness of current or potential waste management technologies or the technical or economic practicability of imposing its proposed regulations. In that same announcement EPA also stated that it believed that any potential hazards presented by the materials "are relatively low."

Id. Congressman Bevill then stated that his amendment "would require EPA to promptly undertake studies to fill these gaps in the agency's knowledge, and to determine whether there is any health or environmental problem from the disposal of these coal by-product wastes and other materials listed [in] the amendment." *Id.*

The discussion of the Bevill Amendment on the House floor indicates that the amendment was viewed as a direct

response to EPA's 1978 proposed regulations and was designed to suspend the Agency's regulation of "special wastes" pending further study. Rep. Santini, a supporter of the Bevill Amendment, stated that the amendment would "defer regulation of 'special waste' until after EPA studies the need to do so." *Id.* at 3348. Rep. Staggers, another Bevill Amendment supporter, referred directly to EPA's proposed regulations of December 18, 1978 and stressed that EPA lacked sufficient information to regulate "special wastes." *Id.* at 3349, 3365. Rep. Staggers supported the Bevill Amendment as a suspension of EPA's regulation of "special wastes" under Subtitle C until EPA studied the need for such regulation:

> The amendment provides EPA with sufficient authority to obtain all information necessary to address the possible need for regulation of "special wastes."

Id. at 3365. *See also id. at* 3363 (remarks of Rep. Findley).

During discussion of the mining waste exclusion on the House floor, Rep. Williams of Montana stated that: "This amendment would direct the Environmental Protection Agency to evaluate certain high volume, low toxicity wastes so as to assure a reasoned set of regulations by which to manage these wastes." *Id.* at 3364. He also discussed the inert slag wastes generated by the smelting of copper, and he went on to say that such wastes would not be regulated until a thorough study established the need for regulation. *Id.*

In light of these indications of Congressional intent, it is clear that congress did not intend the mining waste exclusion to encompass all wastes from primary smelting and refining. On the contrary, Congress intended the term "processing" in the Bevill Amendment to include only those wastes from processing ores or minerals that meet the "special waste" criteria, that is, "high volume, low hazard" wastes.

EPA took note of this legislative history when it proposed its reinterpretation of the Bevill Amendment in 1985. Moreover, the Agency never repudiated its 1985 understanding of Congressional intent when it withdrew its proposed reinterpretation in 1986. Indeed, in 1986, the Agency reiterated that its review of the legislative history of the Bevill exclusion "indicated that the exclusion was intended to cover the category of wastes designated as 'special wastes,' including 'solid waste from the extraction, beneficiation, and processing of ore [and] minerals,' in EPA's 1978 proposed hazardous waste regulations . . ." 51 *Fed. Reg.* 36,234 (1986). At the same time, EPA effectively reaffirmed its 1980 interpretation of the Bevill exclusion, which the Agency characterized as "a permissible, though by no means the sole permissible, interpretation." *Id.* at 36,235. Based on our review of the Bevill Amendment's language and structure and legislative history, we cannot agree with this characterization. On the contrary, it is clear that Congress intended the Bevill exclusion to encapsulate the "special waste" concept articulated by the EPA in 1978.[3] Congress's clear intention "is the law and must be given effect." *Chevron*, 467 U.S. at 843 n.9.

C. *EPA's Decision to Withdraw its Reinterpretation*

Petitioners contend that EPA did not provide a rational justification for withdrawing its proposed reinterpretation of the Bevill exclusion. Petitioners argue that "EPA's sole justification for withdrawing its reinterpretation was that it was having difficulty determining whether certain ad-

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[3] Several mining trade associations, as well as the Kennecott corporation, intervene in support of the EPA. In addition to arguing that EPA's withdrawal of the proposed reinterpretation was reasonable, they also argue that Congress intended the Bevill exclusion to apply to all smelting and refining operations. They point to various aspects of the legislative history of the Bevill Amendment to support their view that wastes from the "processing" of ores and minerals include all smelting and refining wastes. We find their arguments unpersuasive in light of the legislative history analyzed above.

ditional waste streams were 'high volume/low toxicity' wastes." Petitioners' Brief at 45. They contend that while this might justify further refinement of the proposal, it is not a rational justification for abandoning all efforts to narrow the scope of the Bevill exclusion to conform to Congress's intent. Petitioners argue, moreover, that regardless of the status of any additional waste streams, the six hazardous smelter wastes are not properly within the scope of the Bevill exclusion.

EPA responds that the withdrawal of its proposed reinterpretation was reasonable in light of the numerous practical problems with the proposal and the fact that the Agency was required by court order to make its final determination by September 30, 1986. The Agency contends that it was reasonable for it to withdraw the proposed reinterpretation in full rather than adopt various intermediate options. Respondents' Brief at 22-26. When questioned about the six hazardous smelter wastes at oral argument, counsel for EPA responded that the Agency felt "uncomfortable" taking the partial step of removing the six hazardous wastes from the Bevill exclusion and preferred to address the matter as a whole.

We agree with petitioners' claim that EPA's withdrawal of the proposed relisting of the six hazardous smelting wastes was arbitrary, capricious, and contrary to law. The Agency's withdrawal of its proposal to relist the six hazardous smelter wastes is inconsistent with Congress's intent in enacting the Bevill Amendment. Moreover, the fact that EPA did not quantify all the parameters of the "high volume, low hazard" standard in its 1985 proposal, impeding judgment in borderline cases involving other wastes, is not a rational justification for withdrawing the proposal to relist the six hazardous smelting wastes which clearly would not qualify under any acceptable definition, however precise, of "special wastes." Since EPA found that those six smelter wastes are low volume and high hazard wastes, it cannot refuse to list them. Those six wastes are not

properly within the scope of the Bevill exclusion regardless of the status of any additional wastes.

This is not to say that it was unreasonable for the EPA to conclude that it needed more time to refine and clarify its proposed reinterpretation in light of the ambiguities discovered and questions encountered in classifying additional processing wastes in the "grey areas." However, it was arbitrary and capricious for the EPA to withdraw the proposed reinterpretation in its entirety before first determining whether the district court would have granted it an extension of time within which to refine the proposal and work out the unanticipated problems and ambiguities. Moreover, at whatever point EPA took final action on the proposed reinterpretation it was obliged to resolve those ambiguities consistent with Congressional intent. The Agency did not meet its obligations because it chose to withdraw its proposed reinterpretation in full, including the proposed relisting of the six hazardous smelter wastes, and to reinstate by default an impermissibly overbroad interpretation of the Bevill Amendment.

We also note that by reaffirming its 1980 interpretation which included all wastes from primary smelting and refining within the scope of the Bevill Amendment, the EPA placed itself in violation of the court order in *Adamstown*. EPA promised to either study those wastes or exclude them from the scope of the Bevill Amendment. It did neither. Specifically, under the *Adamstown* order, EPA was to propose its reinterpretation of the Bevill Amendment by September 30, 1985 (which the EPA did), and to submit a study of the Bevill mining wastes to Congress by December 31, 1985 (which the EPA did). However, that study covered only extraction and beneficiation wastes. No processing wastes were studied because the 1985 reinterpretation proposed to remove most of those wastes (including the six hazardous smelter wastes) from the scope of the Bevill Amendment. However, by withdrawing that reinterpretation in its entirety in 1986, EPA allowed proc-

essing wastes to fall through the cracks—they were neither studied by EPA nor excluded from the Bevill Amendment's scope.

D. *Combustion Residuals From Industrial Furnaces*

Petitioners challenge EPA's exemption of ash from the burning of hazardous waste in smelter furnaces from Subtitle C regulation. Focussing on a footnote in EPA's burning regulations of November 29, 1985, and citing the Agency's proposed regulations of May 6, 1987, petitioners contend that ash from the burning of hazardous wastes in smelter furnaces is not properly within the scope of the Bevill Amendment and should thus be regulated under Subtitle C of RCRA. Petitioners' Brief at 17-19, 22, 25, 37-39, 42-43. Invoking the doctrine of primary jurisdiction, EPA responds that this issue should not be reviewed by the Court at this time because it is the subject of an ongoing rulemaking procedure, i.e., the May 6, 1987 proposed burning regulations. Alternatively, EPA argues that this issue is subject to judicial review in another case pending before this Court, *Hazardous Waste Treatment Council v. U.S. Environmental Protection Agency,* No. 86-1143. Respondents' Brief at 43-49.

We agree with respondents that petitioners' challenge to the exemption of ash from burning hazardous wastes in smelter furnaces is not appropriate for review in the instant case. First, the status of ash residues from burning hazardous wastes in industrial furnaces is not directly addressed in the 1985 proposed reinterpretation of the Bevill Amendment or the 1986 withdrawal under review in this case. Second, the November 29, 1985 regulations governing the burning of hazardous wastes and used oil in utility boilers and industrial furnaces, including the footnote challenged by petitioners here, are under review in another case pending before this Court, No. 86-1143, brought by Hazardous Waste Treatment Council, one of the petitioners in this case. The challenge to footnote 89 raised in this

case is more appropriately addressed in that direct challenge to the November 1985 regulations. Finally, EPA has explicitly addressed the issue of combustion residuals from industrial furnaces in its May 6, 1987 proposed burning regulations. That rulemaking is still ongoing so the issue is not appropriate for review here.

IV. RELIEF TO BE GRANTED

Petitioners seek an order directing the EPA to proceed with its proposed relisting of the six hazardous smelting wastes. Petitioners are entitled to the relief they seek. Since the six hazardous smelter wastes clearly are not "high volume, low hazard" wastes, EPA cannot refuse to relist them. They are not properly within the scope of the Bevill exclusion regardless of the status of any additional processing wastes. Accordingly, EPA shall relist the six hazardous smelter wastes by *August 31, 1988.*

Petitioners also ask the Court to impose a schedule on EPA for determining which large volume processing wastes remain within the Bevill exclusion and for completing its regulatory responsibilities with respect to those wastes. EPA is obligated to study the processing wastes that remain excluded from regulation under Subtitle C but were not included in the § 8002 studies or the report submitted to Congress on December 31, 1985. Furthermore, EPA is obligated by statute, within six months after it submits a report to Congress on those remaining processing wastes, to decide to regulate them under Subtitle C or determine that such regulation is unwarranted. 42 U.S.C. § 6921 (b) (3) (C).

EPA argues that the relief requested by petitioners is unnecessary because the Agency is now conducting the required § 8002 studies on various processing wastes and "may well conclude that Subtitle C regulation is appropriate for these wastes." Respondents' Brief at 43. EPA's history of delay and missed deadlines with respect to its

statutory obligations to complete the § 8002 mining waste studies, however, indicates that a court-imposed schedule is necessary here. *See Public Citizen Health Research Group v. Brock,* 823 F.2d 626 (D.C. Cir. 1987); *Telecommunications Research & Action Center v. FCC,* 750 F.2d 70 (D.C. Cir. 1984). EPA violated the October 21, 1983 Statutory deadline for completing the § 8002 studies. 42 U.S.C. §§ 6982(f), (p). EPA violated the court order in *Adamstown* by failing to either include processing wastes in the § 8002 study submitted to Congress on December 31, 1985, or to exclude them from the scope of the Bevill Amendment and subject them to regulation under Subtitle C. The *Adamstown* order was based on EPA's own proposed schedule; yet the Agency failed to fully comply with its requirements.

Accordingly, EPA shall adhere to the following schedule for fulfilling its statutory obligations with respect to processing wastes under the Bevill Amendment. EPA shall propose by *August 31, 1988* which processing wastes remain within the Bevill exclusion as "high volume, low hazard" special wastes. EPA shall, after notice and comment, make a final determination of which processing wastes remain within the Bevill exclusion as "high volume, low hazard" special wastes by *December 31, 1988.* EPA shall complete the § 8002 studies of any processing wastes remaining within the Bevill exclusion and submit those studies to Congresss by *January 31, 1989.* As required by statute, EPA shall make its regulatory determination with respect to those wastes within six months of the submission of the report to Congress.

So ordered. This Court will retain jurisdiction to ensure compliance with this Order.

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 86-1584

Environmental Defense Fund,

Petitioner

v.

Environmental Protection Agency
and Lee M. Thomas, Administrator,

Respondents

---

and consolidated case No. 86-1691

FILED AUG 23 1988

Before: Mikva and Buckley, Circuit Judges, and Louis F. Oberdorfer,* U.S. District Judge for the District of Columbia.

ORDER

Respondents have moved for expedited consideration of their petition for rehearing filed August 15, 1988. In response the court authorized petitioners to file any opposition by August 22, 1988. Intervenors have also filed pleadings. Upon consideration of all pleadings, as well as Executive Order 12291, 3 C.F.R. § 127 (Feb. 17, 1981), it is

ORDERED by this court that the second paragraph of page 31 of the slip opinion filed July 29, 1988 be hereby modified to substitute for the dates in italics the following:

October 15, 1988; February 15, 1989; July 31, 1989

---

*Sitting by designation pursuant to 28 U.S.C. § 292(a).

It is FURTHER ORDERED by the court that in all other respects the petitions for rehearing be denied.

Per Curiam.

FOR THE COURT:

CONSTANCE L. DUPRE, Clerk

By: /s/ Robert A. Bonner
Robert A. Bonner
Deputy Clerk

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 86-1584

Hazardous Waste Treatment Council
Petitioner

v.

U. S. Environmental Protection Agency
Respondent

FILED SEP 20 1988

BEFORE: Wald, Chief Judge; Robinson, Mikva, Edwards, Ruth B. Ginsburg, Starr, Silberman, Buckley, Williams, D.H. Ginsburg and Sentelle, Circuit Judges, and Oberdorfer, District Judge, U.S. District Court For the District of Columbia

ORDER

Intervenors' Suggestions For Rehearing *En Banc* have been circulated to the full court. No member of the court requested the taking of a vote thereon. Upon consideration of the foregoing, it is

ORDERED, by the court *en banc,* that the suggestions are denied.

FOR THE COURT:

CONSTANCE L. DUPRE, CLERK

BY: /s/ Robert A. Bonner
Robert A. Bonner
Deputy Clerk

APPENDIX B

RESOURCE CONSERVATION AND RECOVERY ACT

42 U.S.C. § 6921

Identification and listing of hazardous waste

(a) Criteria for identification or listing

Not later than eighteen months after October 21, 1976, the Administrator shall, after notice and opportunity for public hearing, and after consultation with appropriate Federal and State agencies, develop and promulgate criteria for identifying the characteristics of hazardous waste, and for listing hazardous waste, which should be subject to the provisions of this subchapter, taking into account toxicity, persistence, and degradability in nature, potential for accumulation in tissue, and other related factors such as flammability, corrosiveness, and other hazardous characteristics. Such criteria shall be revised from time to time as may be appropriate.

(b) Identification and listing

(1) Not later than eighteen months after October 21, 1976, and after notice and opportunity for public hearing, the Administrator shall promulgate regulations identifying the characteristics of hazardous waste, and listing particular hazardous wastes (within the meaning of section 6903(5) of this title), which shall be subject to the provisions of this subchapter. Such regulations shall be based on the criteria promulgated under subsection (a) of this section and shall be revised from time to time thereafter as may be appropriate. The Administrator, in cooperation with the Agency for Toxic Substances and Disease Registry and the National Toxicology Program, shall also identify or list those hazardous wastes which shall be subject to the provisions of this subchapter solely because of the presence in such wastes of certain constituents (such as

identified carcinogens, mutagens, or teratagens) at levels in excess of levels which endanger human health.

(2)(A) Notwithstanding the provisions of paragraph (1) of this subsection, drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil or natural gas or geothermal energy shall be subject only to existing State or Federal regulatory programs in lieu of this subchapter until at least 24 months after October 21, 1980, and after promulgation of the regulations in accordance with subparagraphs (B) and (C) of this paragraph. It is the sense of the Congress that such State or Federal programs should include, for waste disposal sites which are to be closed, provisions requiring at least the following:

(i) The identification through surveying, platting, or other measures, together with recordation of such information on the public record, so as to assure that the location where such wastes are disposed of can be located in the future, except however, that no such surveying, platting, or other measure identifying the location of a disposal site for drilling fluids and associated wastes shall be required if the distance from the disposal site to the surveyed or platted location to the associated well is less than two hundred lineal feet; and

(ii) A chemical and physical analysis of a produced water and a composition of a drilling fluid suspected to contain a hazardous material, with such information to be acquired prior to closure and to be placed on the public record.

(B) Not later than six months after completion and submission of the study required by section 6982(m) of this title, the Administrator shall, after public hearings and opportunity for comment, determine either to promulgate regulations under this subchapter for drilling fluids, produced waters, and other wastes associated with the ex-

ploration, development, or production of crude oil or natural gas or geothermal energy or that such regulations are unwarranted. The Administrator shall publish his decision in the Federal Register accompanied by an explanation and justification of the reasons for it. In making the decision under this paragraph, the Administrator shall utilize the information developed or accumulated pursuant to the study required under section 6982(m) of this title.

(C) The Administrator shall transmit his decision, along with any regulations, if necessary, to both Houses of Congress. Such regulations shall take effect only when authorized by Act of Congress.

(3)(A) Notwithstanding the provisions of paragraph (1) of this subsection, each waste listed below shall, except as provided in subparagraph (B) of this paragraph, be subject only to regulation under other applicable provisions of Federal or State law in lieu of this subchapter until at least six months after the date of submission of the applicable study required to be conducted under subsection (f), (n), (o), or (p) of section 6982 of this title and after promulgation of regulations in accordance with subparagraph (C) of this paragraph:

(i) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

(ii) Solid waste from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore.

(iii) Cement kiln dust waste.

(B)(i) Owners and operators of disposal sites for wastes listed in subparagraph (A) may be required by the Administrator, through regulations prescribed under authority of section 6912 of this title—

(I) as to disposal sites for such wastes which are to be closed, to identify the locations of such sites through surveying, platting, or other measures, together with recordation of such information on the public record, to assure that the locations where such wastes are disposed of are known and can be located in the future, and

(II) to provide chemical and physical analysis and composition of such wastes, based on available information, to be placed on the public record.

(ii)(I) In conducting any study under subsection (f), (n), (o), or (p), of section 6982 of this title, any officer, employee, or authorized representative of the Environmental Protection Agency, duly designated by the Administrator, is authorized, at reasonable times and as reasonably necessary for the purposes of such study, to enter any establishment where any waste subject to such study is generated, stored, treated, disposed of, or transported from; to inspect, take samples, and conduct monitoring and testing; and to have access to and copy records relating to such waste. Each such inspection shall be commenced and completed with reasonable promptness. If the officer, employee, or authorized representative obtains any samples prior to leaving the premises, he shall give to the owner, operator, or agent in charge a receipt describing the sample obtained and if requested a portion of each such sample equal in volume or weight to the portion retained. If any analysis is made of such samples, or monitoring and testing performed, a copy of the results shall be furnished promptly to the owner, operator, or agent in charge.

(II) Any records, reports, or information obtained from any person under subclause (I) shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof, to which the

Administrator has access under this subparagraph if made public, would divulge information entitled to protection under section 1905 of Title 18, the Administrator shall consider such information or particular portion thereof confidential in accordance with the purposes of that section, except that such record, report, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter. Any person not subject to the provisions of section 1905 of Title 18 who knowingly and willfully divulges or discloses any information entitled to protection under this subparagraph shall, upon conviction, be subject to a fine of not more than $5,000 or to imprisonment not to exceed one year, or both.

(iii) The Administrator may prescribe regulations, under the authority of this chapter, to prevent radiation exposure which presents an unreasonable risk to human health from the use in construction or land reclamation (with or without revegetation) of (I) solid waste from the extraction, beneficiation, and processing of phosphate rock or (II) overburden from the mining of uranium ore.

(iv) Whenever on the basis of any information the Administrator determines that any person is in violation of any requirement of this subparagraph, the Administrator shall give notice to the violator of his failure to comply with such requirement. If such violation extends beyond the thirtieth day after the Administrator's notification, the Administrator may issue an order requiring compliance within a specified time period or the Administrator may commence a civil action in the United States district court in the district in which the violation occurred for appropriate relief, including a temporary or permanent injunction.

(C) Not late than six months after the date of submission of the applicable study required to be conducted under

subsection (f), (n), (*o*), or (p), of section 6982 of this title, the Administrator shall, after public hearings and opportunity for comment, either determine to promulgate regulations under this subchapter for each waste listed in subparagraph (A) of this paragraph or determine that such regulations are unwarranted. The Administrator shall publish his determination, which shall be based on information developed or accumulated pursuant to such study, public hearings, and comment, in the Federal Register accompanied by an explanation and justification of the reasons for it.

* * *

RESOURCE CONSERVATION AND RECOVERY ACT

42 U.S.C. § 6982

Special Studies; plans for research, development, and demonstrations

* * *

(f) Mining waste

The Administrator, in consultation with the Secretary of the Interior, shall conduct a detailed and comprehensive study on the adverse effects of solid wastes from active and abandoned surface and underground mines on the environment, including, but not limited to, the effects of such wastes on humans, water, air, health, welfare, and natural resources, and on the adequacy of means and measures currently employed by the mining industry, Government agencies, and others to dispose of and utilize such solid wastes and to prevent or substantially mitigate such adverse effects. Such study shall include an analysis of—

(1) the sources and volume of discarded material generated per year from mining.

(2) present disposal practices;

(3) potential dangers to human health and the environment from surface runoff of leachate and air pollution by dust;

(4) alternatives to current disposal methods;

(5) the cost of those alternatives in terms of the impact on mine product costs; and

* * *

(n) Materials generated from the combustion of coal and other fossil fuels

The Administrator shall conduct a detailed and comprehensive study and submit a report on the adverse effects

on human health and the environment, if any, of the disposal and utilization of fly ash waste, bottom ash waste, slag waste, flue gas emission control waste, and other byproduct materials generated primarily from the combustion of coal or other fossil fuels. Such study shall include an analysis of—

(1) the source and volumes of such material generated per year;

(2) present disposal and utilization practices;

(3) potential danger, if any, to human health and the environment from the disposal and reuse of such materials;

(4) documented cases in which danger to human health or the environment from surface runoff or leachate has been proved;

(5) alternatives to current disposal methods;

(6) the costs of such alternatives;

(7) the impact of those alternatives on the use of coal and other natural resources; and

(8) the current and potential utilization of such materials.

In furtherance of this study, the Administrator shall, as he deems appropriate, review studies and other actions of other Federal and State agencies concerning such material and invite participation by other concerned parties, including industry and other Federal and State agencies, with a view toward avoiding duplication of effort. The Administrator shall publish a report on such study, which shall include appropriate findings, not later than twenty-four months after October 21, 1980. Such study and findings shall be submitted to the Committee on Environment and Public Works of the United States Senate and the Committee on Energy and Commerce of the United States House of Representatives.

(o) Cement kiln dust waste

The Administrator shall conduct a detailed and comprehensive study of the adverse effects on human health and the environment, if any, of the disposal of cement kiln dust waste. Such study shall include an analysis of—

(1) the source and volumes of such materials generated per year;

(2) present disposal practices;

(3) potential danger, if any, to human health and the environment from the disposal of such materials;

(4) documented cases in which danger to human health or the environment has been proved;

(5) alternatives to current disposal methods;

(6) the costs of such alternatives;

(7) the impact of those alternatives on the use of natural resources; and

(8) the current and potential utilization of such materials.

In furtherance of this study, the Administrator shall, as he deems appropriate, review studies and other actions of other Federal and State agencies concerning such waste or materials and invite participation by other concerned parties, including industry and other Federal and State agencies, with a view toward avoiding duplication of effort. The Administrator shall publish a report of such study, which shall include appropriate findings, not later than thirty-six months after October 21, 1980. Such report shall be submitted to the Committee on Environment and Public Works of the United States Senate and the Committee on Energy and Commerce of the United States House of Representatives.

(p) Materials generated from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from uranium mining

The Administrator shall conduct a detailed and comprehensive study on the adverse effects on human health and the environment, if any, of the disposal and utilization of solid waste from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock and overburden from uranium mining. Such study shall be conducted in conjunction with the study of mining wastes required by subsection (f) of this section and shall include an analysis of—

(1) the source and volumes of such materials generated per year;

(2) present disposal and utilization practices;

(3) potential danger, if any, to human health and the environment from the disposal and reuse of such materials;

(4) documented cases in which danger to human health or the environment has been proved;

(5) alternatives to current disposal methods;

(6) the costs of such alternatives;

(7) the impact of those alternatives on the use of phosphate rock and uranium ore, and other natural resources; and

(8) the current and potential utilization of such materials.

In furtherance of this study, the Administrator shall, as he deems appropriate, review studies and other actions of other Federal and State agencies concerning such waste or materials and invite participation by other concerned parties, including industry and other Federal and State

agencies, with a view toward avoiding duplication of effort. The Administrator shall publish a report of such study, which shall include appropriate findings, in conjunction with the publication of the report of the study of mining wastes required to be conducted under subsection (f) of this section. Such report and findings shall be submitted to the Committee on Environment and Public Works of the United States Senate and the Committee on Energy and Commerce of the United States House of Representatives.

* * *

APPENDIX C

Proposed Rule
December 18, 1978
43 Fed. Reg. 58,946

* * *

[43 Fed. Reg. 58,991-92]

SPECIAL WASTE STANDARDS

In the course of preparing Subtitle C regulations under RCRA, the Agency realized that some portions of certain very large volume wastes will be hazardous under Subpart A standards and thus will come within the purview of the Subtitle C regulatory scheme. These wastes are cement kiln dust, utility waste (fly ash, bottom ash, and scrubber sludge), phosphate mining and processing waste, uranium and other mining waste, and gas and oil drilling muds and oil production brines.

The Agency has very little information on the composition, characteristics, and the degree of hazard posed by these wastes, nor does the Agency yet have data on the effectiveness of current or potential waste management technologies or the technical or economic practicability of imposing the Subpart D standards on facilities managing such waste.

The limited information the Agency does have indicates that such waste occurs in very large volumes, that the potential hazards posed by the waste are relatively low, and that the waste generally is not amendable to the control techniques developed in Subpart D. The Agency is calling such high-volume hazardous waste "special waste" and is proposing to regulate it with special standards.

The following table provides some information about those wastes which, when hazardous, the Agency proposes

Special Waste
[Metric tons/yr]

Waste	Quantity	Possible hazard
Cement Kiln Dust	12 million*	Alkalinity and heavy metals
Utility Waste (fly ash, bottom ash, scrubber studge).	66 million*	Radioactivity (low levels) Heavy metals (trace) Radioactivity
Phosphate Mining, Beneficiation, and Processing Waste.	400 million	Heavy metals, acidity
Uranium Mining	150 million	Alkalinity, heavy metals, toxic organics, salinity
Other Mining Waste	000 billion*	
Gas and Oil Drilling Muds and Oil Production Brines.	5 million*	

Note.—It is not yet known how much of the total quantity of waste marked with as asterisk (*) is, in fact, hazardous waste.

A proposed rulemaking will be published at a later date regarding the treatment, storage, and disposal of special waste. The Agency will be developing additional information in order to write substantive standards for special waste, and hereby solicits information and comment from the public which may assist the Agency in developing its proposals. For the time being, all facilities which handle special waste will be exempted from the storage standards (§ 250.44) and the treatment and disposal standards (§ 250.45). In order to provide some protection from special waste and to collect additional information on special waste streams, EPA has prepared special standards for each type of special waste. Many of the general facility standards in § 250.43 are prescribed for special waste. In addition, some special waste must meet standards which are designed to control potential problems unique to that waste.

* * *

[43 Fed. Reg. 59,016]

§ 250.16-5 Other mining waste.

The treatment, storage, and disposal of discarded material from the extraction, beneficiation, and processing of ores and minerals, except phosphate rock and uranium ores (which are covered under §§ 250.46-3 and 250.46-4), which are determined to be hazardous waste under § 250.13 of Subpart A are subject to the requirements of the following Sections of this Subpart:

250.43(f) (General Facility Standards—waste analysis);

250.43-1 (General Site Selection—for new sources only);

250.43-2 (Security);

250.43-5(a),(b)(1), (b)(2)(i),(b)(6-7), and (c) (Manifest System, Recordkeeping, and Reporting);

250.43-6 (Visual Inspections);

250.43-7(k), (l), and (m) (Closure and Post-Closure);

250.43-8(a) and applicable requirements of (c) and (d) which relate to groundwater monitoring, (Groundwater and Leachate Monitoring—for groundwater monitoring only).

* * *

Final Rule, Interim Final Rule,
and Request for Comments
May 19, 1980
45 Fed. Reg. 33,084

* * *

[45 Fed. Reg. 33,122-24]

Subpart D—Lists of Hazardous Wastes

§ 281.30 General.

(a) A solid waste is a hazardous waste if it is listed in this Subpart, unless it has been excluded from this list under §§ 280.20 and 280.22.

(b) The Administrator will indicate his basis for listing the classes or types of wastes listed in this Subpart by employing one or more of the following Hazard Codes:

Ignitable Waste	(I)
Corrosive Waste	(C)
Reactive Waste	(R)
EP Toxic Waste	(E)
Acute Hazardous Waste	(H)
Toxic Waste	(T)

Appendix VII identifies the constituent which caused the Administrator to list the waste as an EP Toxic Waste (E) or Toxic Waste (T) in §§ 261.31 and 261.32.

(c) Each hazardous waste listed in this Subpart is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under Parts 282 through 265 and Part 122 of this Chapter.

(d) Certain of the hazardous wastes listed in § 261.31 or § 261.32 have exclusion limits that refer to § 261.5(c)(5).

* * *

§ 261.32 Hazardous Waste From Specific Sources

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
	* * * * * *	
Primary copper:		
K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.	(T)
Primary lead:		
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.	(T)
Primary zinc:		
K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.	(T)
	* * * * * *	

Final Rule and Interim Final Rule
May 19, 1980

45 Fed. Reg. 33,154

* * *

[45 Fed. Reg. 33,173]

M. Special Wastes

The proposed regulations established a class of solid wastes for which, if hazardous, application of the full set of Subtitle C standards was deferred. These solid wastes, called "special wastes" were cement kiln dust, utility waste (ashes and sludges), phosphate rock mining and beneficiation wastes, uranium and other mining wastes, and gas and oil drilling muds and oil production brines. For hazardous portions of these solid wastes, a very limited subset of the Subtitle C standards was to be applicable pending completion of studies defining the most appropriate waste management practices.

When the proposed rules were issued, the Agency had only limited information on these wastes. However, the information the Agency did have suggested that application of the full set of proposed waste management standards would not be appropriate.

* * *

[45 Fed. Reg. 33,174]

In the course of its consideration of the comments, including proposed additions to the special waste category, EPA made two significant changes in the basic structure and content of the Subtitle C regulations. These are (1) changes in the toxicity and corrosivity hazardous waste characteristics under Part 261 which narrow the category of waste which will be brought into Subtitle C by these characteristics, and (2) the incorporation of significantly more flexibility, through phasing and standard-setting, in the Parts 264 and 265 regulations. The Agency now has concluded that these changes accomplish the objectives of, and eliminate the need for, a special solid waste category.

* * *

[45 Fed. Reg. 33,175]

In consideration of all of the above factors, the Agency has concluded that the special solid waste category is no longer necessary. It has been eliminated in these final Phase I regulations. Those portions of the six proposed special wastes which are determined by the characteristics to be hazardous will be subject to the applicable Part 264 and 265 regulations.

Interim Final Rule
July 16, 1980

45 Fed. Reg. 47,832

* * *

Additional Listings. On May 19, 1980, as part of its final and interim final regulations implementing Section 3001 of RCRA, EPA published a list of hazardous wastes (Subpart D of this Part), which included 85 process wastes and 361 commercial chemical products (45 FR 33123-33127). In the preamble to that regulation (45 FR 33087), we stated that we intended to amend this list in June to add twenty-five wastes which we had proposed for listing on December 18, 1978 (43 FR 58957-58959) or August 22, 1979 (44 FR 49403-49404), but for which final listing decisions could not be made, and final background documents could not prepared, in time for the May promulgation (Appendix A, 45 FR 33117-33118).

Eighteen of these wastes are being added to EPA's hazardous waste list today. Included in this supplemental list are wastes from industrial painting and wastes from the production of paint, ink, organic, chemicals, inorganic chemical, veterinary pharmaceuticals, iron and steel, aluminum and ferroalloys. EPA has evaluated all of these wastes against the criteria for listing toxic wastes contained in § 261.11(a)(3) and has determined that they pose a substantial present or potential hazard to human health or the environment when improperly treated stored transported, disposed of or otherwise managed.

* * *

[45 Fed. Reg. 47,833-34]

Title 40 of the Code of Federal Regulations is amended as follows:

* * *

§ 261.32 Hazardous waste from specific sources.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
	* * * * * * *	
Primary aluminum:		
K088	Spent potliners from primary aluminum reduction.	(T)
Ferroalloys:		
K090	Emission control dust or sludge from ferrochromium-silicon production.	(T)
K091	Emission control dust or sludge from ferrochromium production.	(T)
	* * * * * * *	

Interim Final Amendments
to Rule With Request
for Comments
November 18, 1980

45 Fed. Reg. 76,618

* * *

[45 Fed. Reg. 76,619-20]

In Section 7 of the recently enacted Solid Waste Disposal Act Amendments of 1980 (P.L. 94-482 October 21, 1980), the Congress amended Section 3001 of RCRA to prohibit EPA from regulating certain wastes under Subtitle C of RCRA until after completion of certain studies and certain rulemaking. Among those wastes are (1) "solid waste from the extraction, beneficiation and processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore" and (2) "cement kiln dust waste." Accordingly EPA is today amending its regulations, at § 261.4, to incorporate this statutory change.

* * *

§ 261.4 [Amended]
* * * * *

(b) * * *

(6) Solid waste from the extraction, beneficiation and processing of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore.

(7) Cement kiln dust waste.

These amendments are issued under the authority of Sections 10006, 2002(a) and 3001 of the Solid Waste Disposal Act, as amended by the Resource Conservation and

Final Rule and Temporary
Suspension of Interim Final Rule
January 16, 1981

46 Fed. Reg. 4614

• • •

In response to public comment, the Environmental Protection Agency (EPA) today is finalizing the listings of thirteen hazardous wastes from specific sources that were proposed or promulgated in interim final form in the Federal Register on July 16, 1980 (45 FR 47832-47836).

[46 Fed. Reg. 4617]

For the reasons and as set out in the preamble, 40 CFR Part 261 is amended as follows:

• • •

3. Revise § 261.32 to read as follows:

§ 261.32 Hazardous waste from specific sources.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
	* * * * * *	
Primary copper:		
K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.	(T)
Primary lead:		
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.	(T)
Primary zinc:		
K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.	(T)
	* * * * * *	

Corrections to Interim Final
and Final Rules
May 20, 1981

46 Fed. Reg. 27,473

* * *

[46 Fed. Reg. 27,474]

2. Changes to §§ 261.32 and 261.32

On November 12, 1980, § 261.32 was amended at 45 FR 74890 and 45 FR 74891. The section number § 261.32 was misprinted as § 262.32 on both pages. This typographical error is corrected by this notice.

On January 16, 1981, EPA published the complete list of hazardous wastes, which included a recodification of the hazardous waste list promulgated on November 12, 1980 (45 FR 74884). In reprinting the complete list of wastes, the Agency erroneously included certain wastes from the exploration, mining, milling, smelting and refining of ores and minerals, namely wastes F014, F015 and K064-K068. These wastes were provisionally excluded from regulation on November 19, 1980 (45 FR 76618), when the Agency promulgated an exclusion implementing and interpreting Section 7 of the recently enacted Solid Waste Disposal Act Amendments of 1980 (Pub. L. 94-482, October 21, 1980), which states that solid wastes from the extraction, beneficiation, and processing of ores and minerals (including coal) are excluded from regulation under Subtitle C of RCRA. To clear up this confusion, the Agency is now removing these wastes from the hazardous waste list. However, after reviewing the applicable legislative history and public comments filed in response to the November 19, 1980 notice, the Agency may amend the exclusion to bring one or more of these wastes back under Subtitle C control.

* * *

[46 Fed. Reg. 27,477]

§ 261.32 (Amended)

9. Amend § 261.32 by removing the following waste streams:

K064—Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.

K065—Surface impoundment solids contained in and dredged from surface from surface impoundments at primary lead smelting facilities.

K066—Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.

K067—Electrolytic anode slimes/sludges from primary zinc production.

K068—Cadmium plant leachate residue (iron oxide) from primary zinc production.

Notice of Proposed Rulemaking
October 2, 1985

50 Fed. Reg. 40,292

• • •

[50 Fed. Reg. 40,293-95]

Since Congress enacted the mining waste exclusion and EPA published its interpretation of the exclusion in 1980, EPA and State regulatory agencies have had to make dozens of individual determinations as to whether a given waste is a mining waste and therefore excluded from Subtitle C requirements. It has been particularly difficult to determine what operations constitute "processing of ores and minerals." As a general rule, EPA has interpreted this phrase to include any operation which further refines or purifies the product being mined (often a metal). Combining the product with another material (e.g., alloying) and fabrication (any sort of shaping that does not cause a change in chemical composition) is not considered "processing of ores and minerals." However, applying this approach, it is still often unclear whether a waste qualifies for the exclusion. For instance, EPA has said that wastes produced by refining copper from 98 to 99 percent purity are excluded. Yet, copper with 98 percent purity can be marketed as a finished product for certain purposes; it does not conform to the usual definitions of "ore" or "mineral."

These determinations of exclusionary status have created a number of inequities among industry segments. For instance, wastes from primary lead smelters are excluded from regulation by EPA's current interpretation of the mining waste exclusion, but similar wastes from secondary lead smelters are subject to full hazardous waste regulation because the smelter input is scrap, not an ore or mineral. In another example, sulfuric acid which is derived from

naturally occurring sulfur in certain ores and is removed by acid plants at copper, lead, and zinc smelters is currently excluded. However, spent acids from other industries are regulated as hazardous.

Because of the uncertainties associated with determining the scope of the mining waste exclusion, EPA and State regulatory agencies have had to expend considerable time and resources on lengthy investigations to determine the exact sources of wastes, whether the input to an operation is an ore/mineral or scrap metal (or some combination of both), and the extent to which waste is recycled to production processes. Rather than continue to make these detailed determinations on a case-by-case basis, it has long been thought that some general clarification of the scope of the mining waste exclusion was necessary. More importantly, as explained in more detail below, it has become increasingly clear that EPA current interpretation does not best serve the Congress's objective in enacting the Bevill Amendment. Instead it has had the effect of excluding a broad range of wastes, many of which are hazardous, and are often generated many steps beyond the initial extraction and beneficiation of ores and minerals.

II. Analysis of Options Available

EPA evaluated three options before preparing this proposal:

(1) Retain the current interpretation and conduct a Section 8002 study on processing wastes that are currently excluded, but are not part of the current Section 8002 study of mining waste.

(2) Narrow the exclusion to include only large volume wastes from processing ores.

(3) Narrow the exclusion to include only large volume wastes from processing *metallic* ores.

In consulting various sources, we have found no standard, accepted definitions, i.e., "plain meanings," for the

terms of the exclusion, particularly "processing." Therefore, we reviewed the legislative history of the mining waste exclusion for guidance. In evaluating the options, we relied on the following indications of Congressional intent:

• During the discussion of the mining waste exclusion on the House floor, Rep. Williams of Montana quoted a National Academy of Sciences report stating that slag wastes generated by the smelting of copper are "basically inert and weather slowly. The slag produced 2,500 years ago at King Solomon's mines north of Eliat, Israel has not changed perceptibly over time." 126 *Cong. Rec.* H. 1104 (daily ed. February 20, 1980). Rep. Williams went on to say that such wastes should not be subject to RCRA. His statements were unchallenged in subsequent debate on the amendment. In addition, in his "Extension of Remarks" in the Congressional Record, Rep. Bevill, the amendment's sponsor, stated that "the list of waste materials in the amendment * * * (should) be read broadly, to incorporate the waste products generated in the real world." 126 *Cong. Rec.* E 4957 (daily ed. November 17, 1980).

• The legislative history of the Bevill Amendment indicates that EPA's regulatory concept of a "special waste" should be used as a guide in discerning Congressional intent. The Conference Committee Report states that the 1980 RCRA amendments suspend regulation of "a category designated as a special wastes" in regulations proposed by the Agency under Subtitle C on December 18, 1978. S. Rep. No. 96-1010, 96th Cong. 2d Sess. 32 (1980) (Conference Committee Report). In addition, Rep. Santini stated that he believed the amendment would "defer regulation of 'special waste' until after EPA studies the need to do so." 126 *Cong. Rec.* H 1089 (daily ed. February 20, 1980).

• In the preamble to the 1978 regulations, EPA explained that it intended to treat special wastes differently because they were generally thought to be high volume, low toxicity materials, and not amenable to management under the proposed standards for hazardous waste treatment, storage, and disposal facilities. While EPA listed several smelting wastes as hazardous wastes, only a few listed smelting wastes were included in the "special waste" category. Section 250.46-3 of the 1978 proposal, which was titled "Phosphate rock mining, beneficiation, and processing waste," listed "slag . . . from elemental phosphorus production" as one of the wastes subject to special waste regulations.[1]

• In the legislative history accompanying the 1984 amendments to RCRA, the Senate Committee on Environment and Public works stated:

> Solid wastes from mining and mineral beneficiation and processing are primarily waste rock from the extraction process and crushed rock, commonly called tailings, produced from concentrating steps such as grinding, crushing, sorting, sizing, classification, washing, dewatering, amalgamation, gravity treatment, flotation, agglomeration and cyanidation. The 1980 amendments covered wastes from the initial stages of mineral processing, where concentrations of minerals of value are greatly increased through physical means, before applying secondary processes. Smelter slag might also be included. Massive volumes of this waste ore are produced annually by mining and mineral processing facilities—roughly estimated by the American Mining Congress (AMC) to be approximately 1.75 billion tons in a typical year, which is clearly signif-

[1] Although the process for obtaining elemental phosphorus from phosphate is called phosphorus reduction, rather than smelting, both processes have the same purpose (i.e., separating the desired element from the ore) and comparable wastes (e.g., slag).

icantly greater in volume than the solid waste generated by all other industries combined. These wastes were considered "special wastes" under the 1978 proposed regulations as being of large volume and relatively low hazard.

Each of the options is evaluated below in light of these indications of Congressional intent:

Option 1—Retain current interpretation and conduct a Section 8002 study on wastes that are currently excluded, but are not part of the current Section 8002 mining waste study.

EPA believes that this option does not reflect either the special waste concept or the intent of Congress as described above. This option would entail studying many low volume wastes, some of them hazardous, generated by facilities processing ores. It would dilute resources available for studies on large volume wastes of interest to Congress.

Option 2—Narrow the exclusion to include only large volume wastes from processing ores.

This interpretation is most consistent with Congressional intent because it leaves large volume processing wastes (i.e., phosphogypsum from phosphoric acid plants, slag from primary smelting of metallic ores or phosphorous reduction, and muds from bauxite refining) within the exclusion, deferring their possible regulation under Subtitle C until completion of studies required for the Report to Congress on mining waste. Annual phosphogypsum disposal is approximately 47 million metric tons; slag disposal from primary metal smelters is over 4 million metric tons; slag from phosphorous reduction is over 3 million metric tons; and mud from bauxite refining is about 2 million metric tons. By limiting the mining waste exclusion to these high volume wastes, this option takes into account the references in the legislative history to high volume, relatively low toxicity wastes, *i.e.*, "special wastes." In fact, this

approach constitutes the most rigorous application of the special waste concept.

Option 3—Narrow exclusion to include only large volume wastes from processing *metallic* ores.

This option represents the narrowest possible reinterpretation of the mining waste exclusion, but it reflects only Rep. Williams's specific remarks about slag from copper smelting in Israel. It would maintain the excluded status of red and brown muds (2 million metric tons/year) produced by refining bauxite ore. However, a very large volume processing waste, the 47 million metric tons of phosphogypsum produced each year by phosphoric acid plants, would no longer be within the exclusion. This option also would remove another large volume waste from the exclusion: slag produced by the facilities extracting elemental phosphorus from phosphate ore, because phosphorus is not a metal.

Based on the above analysis of Congressional intent, EPA believes that it was incorrect in interpreting the mining waste exclusion as encompassing all wastes from primary smelting and refining. Therefore, EPA is proposing to reinterpret the mining waste exclusion so that red and brown muds, phosphogypsum, and primary processing slags are the only processing wastes that remain excluded from regulation under Subtitle C of RCRA. All other wastes from processing ores and minerals would be subject to Subtitle C regulation if the wastes are hazardous.

EPA is aware that there are a large number of wastes that could arguably be viewed as wastes from the "processing" of minerals or ores. However, we believe the term "processing" must be interpreted in light of the criteria outlined above. Based on these criteria, we conclude that not all such wastes are properly excluded from regulation under the mining waste exclusion primarily because they do not meet the "special waste" criteria, i.e., high volume, relatively low toxicity. For instance, as mentioned earlier,

the listings of certain smelting wastes as hazardous waste were suspended after the Bevill Amendment was enacted even though the rulemaking records for these listings show they are hazardous and these listings were not challenged.

In addition, many of the wastes excluded by EPA's 1980 interpretation of the mining waste exclusion are not high volume wastes.[2] The processing wastes we are proposing for retention within the exclusion range in volume from 2 to 47 million metric tons per year. These volumes are comparable to the other special waste categories proposed December 18, 1978. See 43 FR 58992. For example, utility waste was estimated at 66 million metric tons per year and cement kiln dust at 12 million metric tons per year. The volumes of wastes that would be removed from the exclusion as a consequence of the reinterpretation are substantially smaller in volume than the wastes that would remain within the exclusion. In fact, these waste volumes are generally smaller than the volumes already subject to Subtitle C regulation in other (non-mining) industrial sectors.

EPA requests public comment on the proposed reinterpretation of the mining waste exclusion. Commenters should identify any other processing wastes that meet the "special waste" criteria and therefore should remain within the mining waste exclusion.

III. Proposed Relisting of Smelting Wastes

A. General

EPA proposes to relist as hazardous six wastes (Table 2) associated with smelting operations that were removed

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[2] Based on the various indications of Congressional intent described in the text, EPA believes it is reasonable to rely primarily on volumes of waste generated to determine which wastes should have been excluded by the Bevill Amendment. However, it may well be appropriate to consider additional factors in making regulatory decisions regarding waste with hazard characteristics similar to those of the high volume wastes covered by the Bevill Amendment.

from the listing regulations after the Bevill Amendment was enacted.[3] As explained previously, EPA believes this proposed interpretation more accurately represents the intent of Congress when it enacted the mining waste exclusion; therefore, we also believe it is appropriate to propose to relist those wastes that were suspended because they fell under our 1980 interpretation of the wastes subject to the exclusion. While we are requesting comment on the revised interpretation, we are not requesting comment (except as specified below) on the specific basis for the proposed relisting of these wastes as hazardous. (See Preambles to May 19, 1980 (45 FR 33113-115) and July 16, 1980 (45 FR 47834) Federal Register notices and background documents to these specific listings for EPA's basis in listing these wastes as hazardous.) Since it was EPA's interpretation of the Bevill Amendment, not a reevaluation of their hazard, that provided the sole basis for removing them from the regulations, it is the interpretation of that provision that should determine whether these wastes should again be listed. In fact, when these wastes were removed from the hazardous waste list, we specifically indicated that if our interpretation was modified to no longer include the smelting and refining wastes, we would add these wastes to the hazardous waste list without reproposal. See 40 FR 4614, January 16, 1981 and 46 FR 27473, May 20, 1981. If any person disagrees with the listing of these wastes based on additional information about their hazard, i.e., information which does not appear in the rulemaking record for the 1980 listings, they should explain the specific basis for their objections and provide additional information.

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[3] Two of the residues listed previously are not being relisted based on our reevaluation of these materials. See Section III.C. for more detailed discussion.

* * *

[50 Fed. Reg. 40,301]

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTES

For the reasons set out in the preamble, it is proposed to amend 40 CFR Part 261 as follows:

* * *

 # 261.4 Exclusions.

* * * * *

(b) * * *

(7) Solid waste from the extraction, beneficiation and processing of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore. For purposes of this paragraph, solid waste from the processing of ores and minerals only includes muds from facilities refining bauxite, phosphogypsum from phosphoric acid plants, and slag from primary metal smelters and phosphorus reduction facilities.

* * * * *

3. In § 261.32, add after entries for "Iron and steel" and before entries for "Secondary lead," the following waste streams:

§ 261.32 Hazardous waste from specified sources.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
	* * * * * * *	
Primary copper:		
K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.	(T)
Primary lead:		
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.	(T)
Primary zinc:		
K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.	(T)
Primary aluminum:		
K088	Spent potliners from primary aluminum reduction.	(T)
Ferroalloys:		
K090	Emission control dust or sludge from ferrochromium-silicon production.	(T)
K091	Emission control dust or sludge from ferrochromium production.	(T)
	* * * * * * *	

Withdrawal of Proposed Rule;
Final Action
October 9, 1986

51 Fed. Reg. 36,233

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[51 Fed. Reg. 36,234-35]

II. Basis for Withdrawal of the Proposed Rule

In response to the proposal, many commenters "nominated" wastes which they believed fit the "special waste," *i.e.*, high volume, low hazard criteria, and therefore should remain excluded from Subtitle C regulation as "processing wastes." Since EPA did not specifically quantify the terms "high volume" or "low hazard" in the proposal, the Agency was unable to determine the status of these additional wastes. As explained in more detail below, EPA tried to infer definitions for these terms from the four wastes listed in the proposal as meeting these two criteria. At that point, it became clear that the selection of a high volume cutoff, and the definition of "low hazard," raised several major issues. In particular, a volume cutoff only makes sense if the wastes are arrayed in defined, consistent groups, and the data for each group comparable, *e.g.*, they are for the same year, they represent the same type of waste (solid or hazardous), they measure the same thing (per facility or per industry). Since the proposed mining waste reinterpretation did not define "high volume" of "low hazard," nor did it discuss any of the issues associated with these definitions, the public could not discern whether a given waste might quality for continued exclusion as a high volume, low hazard waste, much less comment on the validity of those criteria. Therefore, the Agency believes it cannot promulgate a final mining waste reinterpretation based on its October 2, 1985 proposal.

These various issues raised by the proposal are discussed in more detail below.

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E. Definition of High Volume

The proposed mining waste reinterpretation did not define "high volume," *i.e.*, no volume cutoff was specified. The proposal did list the volume of each of the four wastes that it believed would remain excluded as follows:

Waste	Volume (million metric tons)
Phosprogypsum	47
Primary metal smelter slags	4
Phosphorus reduction slag	3
Bauxite refining muds (red and brown)	2

From this list, one could infer that the lowest volume, *i.e.*, 2 million, was the high volume cutoff. However, EPA has since determined that bauxite refining muds are actually a beneficiation waste, not a processing waste. Therefore, EPA next looked to the two slag wastes for an appropriate cutoff. However, as mentioned above, phosphorus reduction slag was listed separately, while all the primary metal slags (including cooper, lead, and zinc) were lumped together. If EPA had listed the primary metal slags separately, the volume for the smallest, and in turn the implied cutoff, might have been substantially lower.

F. Definition of Low Hazard

In the proposed mining waste reinterpretation, EPA did not actually define "low hazard." It was not clear whether EPA was relying on the four hazardous waste characteristics, which appear in 40 CFR Part 261, Subpart, C, or some other definition. Also, the proposal did not explain

whether EPA was looking at the hazard associated with a given waste stream, or the proportion of hazardous waste in a group of wastes generated in the same process.

III. Conclusion

By court order, EPA is obliged to take final action by September 30, 1986. At this time, the comments as well as the Agency's own analysis, have convinced us that the proposed reinterpretation cannot be finalized because it did not set out practically-applicable criteria for distinguishing processing from nonprocessing wastes. Moreover, we are unsure whether such criteria could be developed, given the complexity of these issues. Therefore, the Agency is withdrawing the proposal. As a consequence, EPA's current interpretation of the mining waste exclusion, as set out in the November 19, 1980 rulemaking notice, remains in place. EPA believes this to be a permissible, though by no means the sole permissible, interpretation of the ambiguous statutory phrase "processing of ores and minerals." A second consequence of this action is that the Agency also is withdrawing the proposed relistings of the six individuals waste streams. These wastes, under the current interpretation, are deemed to be derived from processing of ores and minerals and so are excluded from regulation under Subtitle C until the requisite section 8002 studies are completed.

Although we are withdrawing the proposed regulation at this time, the Agency is continuing to grapple with the problem of formulating "ground rules" which define the wastes that are covered by the mining waste exclusion, which in turn defines the section 8002 study obligation. In the course of completing its obligation under Section 8002, EPA will attempt to further clarify the scope of the mining waste exclusion. EPA may utilize aspects of this proposal in doing so, and certinly is not stating that the high volume, low hazard principle is inherently unsound. In a more quantified from, this principle could become the

basis of such ground rules. The Agency is considering other ground rules as well. In the meantime, the Agency will proceed with additional section 8002 studies addressing processing wastes. The Agency intends to include the six wastes we proposed to relist in the first of these additional section 8002 studies. EPA will not lose any further time in determining the appropriate regulatory regime for these particular wastes, even though we plan to study further the feasibility of ground rules.

Final Rule
September 13, 1988

53 Fed. Reg. 35,412

* * *

The Environmental Protection Agency (EPA) is today amending its regulations under the Resource Conservation and Recovery Act (RCRA) by relisting as hazardous certain wastes generated from metal smelting operations. These wastes were previously listed as hazardous; however, the listings were suspended by the Agency in response to the enactment of the "Beville Amendment." The Agency is today removing the suspensions in direct response to a court order. Specifically, the Agency is adding six wastes to the list of hazardous wastes from specific sources (40 CFR 261.32). The Agency is also amending the regulations promulgated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) at 40 CFR Part 302, which designates these wastes as CERCLA hazardous substances and establishes the reportable quantities applicable to these wastes.

The effect of removing the suspensions and thereby relisting these six wastes as hazardous is to subject them to the hazardous waste regulation requirements of Parts 262 through 266, 270, 271, and 124 of this chapter, and to the notification requirements of section 3010 of RCRA.

* * *

[53 Fed. Reg. 35,420-21]

For the reasons set out in the preamble, 40 CFR Parts 261 and 302 are amended as follows:

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTES

* * *

2. Section 261.4(b)(7) is revised to read as follows:

§ 261.4 Exclusions

* * *

(b) * * *

(7) Solid waste from the extraction, beneficiation and processing ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore. For the purposes of this paragraph, solid waste from the processing or ores and minerals does not include:

(i) Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production;

(ii) Surface impoundment solids contained in the dredged from surface impoundments at primary lead smelting facilities;

(iii) Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production;

(iv) Spent potliners from primary aluminum reduction;

(v) Emission control dust or sludge from ferrochromiumsilicon production;

(vi) Emission control dust or sludge from ferrochromium production.

* * *

3. In § 261.32, add after entires for "Iron and steel" and before entries for "Secondary lead", the following waste streams:

§ 261.32 Hazardous waste from specified sources.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
	* * * * * *	
Primary copper:		
K064	Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production.	(T)
Primary lead:		
K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.	(T)
Primary zinc:		
K066	Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production.	(T)
Primary aluminum:		
K088	Spent potliners from primary aluminum reduction.	(T)
Ferroalloys:		
K090	Emission control dust or sludge from ferrochromium-silicon production.	
K091	Emission control dust or sludge from ferrochromium production.	(T)
	* * * * * *	

Notice of Proposed Rulemaking
October 20, 1988
53 Fed. Reg. 41,288

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[53 Fed. Reg. 41,291-96]

B. Criteria for Identifying "High Volume" Wastes From Ore and Mineral Processing

In *EDF* v. *EPA*, the Court states that:

Congress intended the term " processing" in the Bevill Amendment to include only those wastes from processing ores or minerals that meet the "special waste" criteria, that is, "*high volume*, low hazard" wastes. 852 F.2d at 1331-32 (emphasis added).

Given this directive, the requirements of the Bevill Amendment, and the legislative and regulatory history of the "special waste" issue, it is clear that EPA must unambiguously define criteria by which to distinguish "high volume" processing wastes. Accordingly, today's proposal describes the criteria that the Agency used to distinguish between high and low volume processing wastes, and provides a list of the wastes that, to the best of the Agency's current knowledge, meet the "high volume" criteria. In this way, EPA hopes to not only communicate to industry and the public which wastes it considers to be temporarily exempt from Subtitle C regulation, but also to allow members of the mineral processing industry to evaluate whether or not they may generate additional solid wastes that should be studied under RCRA section 8002(p) prior to a determination as to their regulatory status. Clearly, the application of the "high volume" criteria to specific wastes will depend not only on the specific elements of the criteria themselves but on the definition of "mineral processing" presented above.

Due to the extremely diverse nature of domestic mineral processing operations and their associated wastes, EPA has experienced considerable difficulty in the past in defining criteria that addressed all of the wastes envisioned by the Congress and by the Agency's original concept of "special wastes," while not concurrently including wastes that are not truly high volume and/or low hazard. When the Agency withdrew its proposed reinterpretation in 1986, it noted several issues that needed to be addressed in the development of a "high volume" criterion (51 FR 36233). These and other attendant issues are discussed below along with the "high volume" criteria that EPA has adopted for use in this rulemaking.

Because "high volume" has been so difficult to define, EPA developed an explicit analytical framework to evaluate candidate high volume wastes. In so doing, the Agency had to resolve a number of methodological issues. The following discussion of the high volume criteria addresses the following four primary methodological issues in sequence: (1) The appropriate degree of aggregation of waste streams, (2) the basis for quantitative analysis (plant-specific vs. industry-wide), (3) the units of measure, and (4) the types of other wastes to be used as the basis for comparison.

1. Degree of Aggregation of Waste Streams

EPA has evaluated three options for establishing the degree of aggregation to be used in analyzing the volumes of waste generated:

(1) Consider each waste stream individually;

(2) Aggregate waste streams within facility, i.e., conduct the analysis on a facility-wide basis; or

(3) Combine specific waste streams across mineral commodity sectors, according to similarities in feedstocks, production processes, physical/chemical characteristics, management practices, or other characteristics.

EPA has adopted the first option, deciding to evaluate waste streams individually, rather than in aggregate. For example, waste furnace brick from copper smelting/refining has been evaluated separately from other copper processing wastes such as slag and air pollution control dusts. Given the current level of available information, the Agency believes that this is the most clear and feasible approach.

Aggregating all wastes within a facility for purposes of analysis would ignore the obvious and significant differences in volume and potential hazard that exist between the diverse groups of waste streams produced at mineral processing facilities. Moreover, the discussion of "high volume" or "special" wastes in the RCRA statute, amendments, and in particular the legislative history tends to identify specific waste streams rather than generic or aggregated wastes generated by facilities or industries. In addition, where practical, EPA listings of hazardous wastes under Subtitle C tend to identify specific waste streams generated at particular types of facilities.

On the other hand, inter-industry similarities in production processes, waste characteristics, and waste management practices suggest that certain waste types might reasonably be combined across mineral commodity sectors (e.g., non-ferrous slags from copper, lead, and zinc smelting). Statutory directive and Congressional intent are not available for guidance in evaluating the appropriateness of this approach, though in its 1985 proposed reinterpretation of the Bevill exclusion, EPA explicitly placed "primary metal smelting slags" inside the narrowed Bevill boundaries (i.e., as a *group* rather than individually) (50 FR 40292). Although the Agency believes that combining wastes for purposes of analysis may in some cases be appropriate, it has not been able to develop a simple and non-arbitrary system for implementing this approach. Therefore, EPA has not combined waste streams to determine which should continue to receive the temporary Bevill exclusion.

2. Basis for Quantitative Analysis

In deciding upon the proper focal point for conducting its quantitative analysis to support a definition of "high volume" processing wastes, EPA considered three basic options:

(1) Develop and analyze a plant-specific measure of waste generation;

(2) Examine waste stream generation on an industry-wide basis; and

(3) Develop and utilize a combination of the first two alternatives.

EPA has chosen option 3, and has evaluated waste streams using both industry-wide and plant-specific perspectives. In making this decision, the Agency put primary emphasis on developing criteria that were unambiguous, could be easily interpreted by industry and the public, and yielded results that were consistent with previously published discussions concerning which mineral processing wastes are high volume and which are not. *See e.g.*, 43 FR 58946, 50 FR 40292.

The high-volume concept, as originally proposed by EPA in 1978, reflected the Agency's concern that certain wastes that were generated in very large quantities could not feasibly be managed in accordance with all of the technical standards of RCRA Subtitle C, especially because many of these wastes are managed on-site. When Congress incorporated the high-volume concept into the RCRA statute with the adoption of the Bevill Amendment, it echoed these concerns. *See, e.g.*, 126 *Cong. Rec.* 3364 (1980) (remarks of Rep. Williams). In particular, Congress directed EPA to study, under section 8002(p) of RCRA, these high volume wastes in depth in order to determine whether Subtitle C regulation would be appropriate.

In the 1985 proposed Bevill reinterpretation, the Agency relied primarily on total annual industry waste generation

data to determine which waste streams would remain within the temporary exclusion. Use of this measure alone, however, fails to capture certain ore and mineral processing wastes that are not generated widely but are generated in large volumes at each plant. The operators of facilities that produce these wastes may face the same problems with respect to developing and implementing feasible waste management methods as operators in other industry sectors that generate (in aggregate) many millions of tons of waste annually. EPA believes that these facility operators should not be penalized solely because there are fewer plants in their particular ore and mineral processing industry sector than in others that may also generate one or more high volume wastes.

Therefore, EPA believes that it is appropriate to include a measure of typical waste generation at an individual plant (e.g., the mean or median level of waste generated per facility), in evaluating whether a particular waste stream is "high volume"

3. Units of Measure

An important issue related to the previous two involves the units of measure that are applied to mineral processing wastes and that serve as the basis of evaluation and comparison with other "high volume" wastes. Here EPA considered two basic approaches, one of which gives rise to several different potential options:

(1) Use total (absolute) quantity of waste generated annually (metric tons); and

(2) Develop and utilize ratios of *relative* waste volume generated to one or more measures of material handled, such as the ratio of waste quantity to the quantity of ore/mineral feedstock, or the ratio of waste quantity to the quantity of final product. One or some combination of these ratios could be used to compare each mineral processing

waste with the others and with wastes generated in other industries.

EPA has chosen option 1, which is the simplest, and allows direct comparison with other waste streams, industry sectors, etc., and also facilitates subsequent examination of the technical feasibility of Subtitle C regulation (e.g., waste volume compared to available disposal capacity). In addition, this simple measure of waste quantity is easy to calculate and existing data allow it to be computed for potential "high volume" processing wastes.

Production levels, and hence, waste generation volumes, in the mineral processing industry, however, fluctuate considerably over time, due primarily to market conditions. Relying upon data from a single year or even several years in succession may therefore present an inaccurate view of likely waste generation rates in the future.

The second alternative, expressing waste generation as a ratio, provides a measure of the degree of concentration that occurs in the process that generates each waste, potentially providing EPA with an additional variable by which to compare and contrast candidate "high volume" processing wastes with the extraction and beneficiation wastes that are clearly within the Bevill exclusion, as well as other "special wastes." Existing data, however, are not adequate to compile candidate ratios for certain prominent large volume mineral processing waste streams.

Nonetheless, the Agency believes that the ratio concept has merit and would consider incorporating some form of ratio into the final rule. For example, EPA has examined several ratios, and has found that a ratio of waste to product of greater than 0.5 effectively distinguishes high volume from low volume processing wastes, based upon the limited data that are available, i.e., the same list of excluded processing wastes is obtained using this criterion as is obtained using the total volume and average volume

criteria described below. Although EPA did not utilize this ratio in selecting wastes to be retained within the exclusion for today's proposal, the Agency seeks public comment on this approach and on an appropriate ratio.

4. Wastes To Be Utilized as the Basis for Comparison

EPA also considered several bases of comparison with which to evaluate potential high volume wastes. This issue is important because "high volume" is a relative term, having essentially no meaning when applied to anything in isolation. Again, several options are available for comparing different types of high volume and/or hazardous wastes with mineral processing wastes:

(1) Extraction and beneficiation wastes;

(2) Other special study wastes, e.g., oil and gas wastes;

(3) RCRA Subtitle C wastes; and

(4) Some combination of the previous three.

EPA selected option 4 to analyze and quantify the notion of "high volume." Specifically, EPA has compared and contrasted the wastes generated by mineral processing with those generated by the extraction and beneficiation of ores and minerals, and those from oil and gas production (i.e., other section 8002 wastes). See RCRA section 8002(m). In addition, the Agency has examined specific wastes currently regulated under Subtitle C to highlight the similarities and differences between these wastes and those addressed in this proposed rule. EPA believes that each of these three categories of wastes is relevant for purposes of comparison with mineral processing wastes, and that each comparison offers insight into the proper definition of the term "high volume."

Option 1 would compare each processing waste to the wastes that are (or were until studied) clearly and unambiguously within the Bevill exclusion, those from extraction and beneficiation of ores and minerals. EPA

believes that this is a logical basis of comparison, and, accordingly, has examined the quantities of wastes generated by ore and mineral extraction and beneficiation and related them to the quantities of mineral processing wastes (see the docket for additional information).

The second option is to compare processing wastes with other special study wastes, such as those generated by oil and gas production. This is also a reasonable approach, given the special status of these wastes under RCRA, as amended. Moreover, oil and gas production is an *extractive* operation, in which a valuable natural resource is removed from its surroundings and collected for further refinement. As such, it has a number of obvious similarities with the extraction (mining) and subsequent beneficiation and processing of ores and minerals.

The third alternative would compare processing wastes with the existing universe of Subtitle C wastes. Although such a comparison is not directly related to the question at hand (because of the different regulatory environment afforded to "special" wastes under the Bevill Amendment), it could yield an interesting comparison between the wastes to which Subtitle C is applied and those for which Subtitle C is an option. Comparisons of this type, however, are problematic, both in theoretical and practical terms. One important question is how to define the universe of Subtitle C wastes to be used for comparative purposes. Alternatives include examining all Subtitle C wastes, those that closely resemble mineral processing wastes with respect to physical form and chemical composition, those that are managed in ways similar to the common practices employed in the mineral processing industry, and doubtless, others. In practical terms, EPA is limited by data availability, and can only examine waste generation and management at Subtitle C facilities in fairly broad terms. Therefore, EPA has conducted only limited quantitative comparisons of listed Subtitle C wastes with the special wastes. These comparisons are not exhaustive, but dem-

onstrate clearly that typical Subtitle C waste volumes are very different than those of many mineral processing wastes.

For example, EPA has assembled data on the generation of the top nine listed Subtitle C wastes on an aggregate national basis. These data are presented in Table 2. The largest-volume waste is spent pickle liquor from steel finishing, at just over four million metric tons per year. None of the other listed wastes (of which there are *several hundred*) is generated in volumes exceeding one million metric tons per year. As discussed below, this latter generation rate is *one-half* the quantitative total volume criterion used by EPA to designate high-volume processing wastes. Indeed, ten distinct mineral processing waste streams are generated in quantities exceeding one million metric tons per year, and some are generated at rates many times that. This indicates that at least some ore and mineral processing wastes are generated on a very different scale than are typical listed Subtitle C wastes.

Table 2.—Top Nine Listed Hazardous Wastes (1985 data)[a]

Hazardous Waste		Quantity of hazardous waste generated (1,000 MT/yr)
Code	Description	
K062	Spent pickle liquor from steel finishing	4,070
K061	Emission control dust/sludge from primary steel production in electric furnaces.	914
K104	Combined wastewater streams from nitrobenzene/aniline production.	801

K013	Bottom stream from the acetonitrile column in acrylonitrile production.	707
K048	Dissolved air flotation (DAF) from the petroleum refining industry.	[10]700
K051	API separator sludge from the petroleum refining industry.	[10]700
K011	Bottom stream from the wastewater stripper in acrylonitrile production.	687
K087	Decanter tank tar sludge from coking operations.	576
K016	Heavy ends or distiliation residues from carbon tetrachloride production.	414
Total U.S.		245,129

[9] Source: Development Planning and Research Associates, Inc. 1988. *1985 National Biennial Report of Hazardous Waste Generators and Treatment, Storage, and Disposal Facilities Regulated under RCRA (Draft).* Prepared for Office of Solid Waste, U.S. EPA.

[10] Source: *Petroleum Refining Database.* 1987. Prepared from RCRA section 3007 questionnaires by Office of Solid Waste, U.S. EPA.

Moreover, when EPA examined the latest available data on the quantities of hazardous waste managed on-site at RCRA-regulated facilities, it found that only 180 facilities

managing hazardous wastes on-site (well under ten percent of the total) handled more than 50,000 metric tons during this same period (as described below, 50,000 metric tons per year per facility is the other high volume cut-off that EPA has employed to identify high-volume processing wastes). These quantities refer to *combined* volumes of all hazardous wastes generated and managed on-site at the facilities (most of which are in the chemical and oil refining industries), and are probably dominated by relatively dilute aqueous waste streams. Most of the mineral processing waste streams proposed for retention within the Bevill exclusion today, however, are solid materials (e.g., slags), and in any case are evaluated individually rather than in aggregate at the facility level. Despite these factors, which tend to draw further distinctions between typical Subtitle C wastes and mineral processing wastes, any ore or mineral processing facility that generates and manages a waste on-site at a rate of greater than 50,000 metric tons per year would still be within the top ten percent of hazardous waste treatment, storage, or disposal (TSD) facilities nationwide in terms of volume of waste managed if the waste was to be regulated under Subtitle C.

5. Definition of High Volume Processing Waste

Based on a consideration of the factors outlined above, EPA decided that any waste generated from the processing of ores or minerals, as defined in Section II.A, above, that met either criterion 1 or criterion 2, below, would be designated a "high volume" processing waste:

(1) For a *specific* waste stream arising from mineral processing in any given mineral commodity sector (e.g., primary copper processing), the total quantity of the specific waste generated by all facilities in the United States in any one calendar year from 1982 through 1987 equals more than 2 million metric tons; or

(2) For a *specific* waste stream arising from mineral processing in any given mineral commodity sector, the

specific waste stream is generated at an *average rate* (i.e., total quantity of the specific waste generated by all facilities in the United States in any one calendar year from 1982 through 1987 divided by the number of facilities generating the waste) of more than 50,000 metric tons per facility per year.

These criteria effectively and unambiguously distinguish the truly high volume ore and mineral processing wastes from those that are generated at lower rates, at least in those industry sectors for which EPA has adequate data to apply the criteria. As discussed below, the distribution of waste volumes within and across these sectors is essentially bimodal, with many sectors having one or a few high volume waste streams along with several other low volume waste streams. As a result, the criteria serve mainly to highlight these existing differences in volume rather than to draw arbitrary lines; changing either of the specific numeric criteria has little effect on which wastes are identified as being high volume. For example, lowering the total volume criterion from 2 million to 500,000 metric tons per year or raising it to 3 million metric tons per year would have *no* effect on the list of wastes proposed to be retained within the exclusion, while raising or lowering the average volume criterion by 10,000 metric tons per year per facility (a change of 20 percent) would affect the designation of, at most, *one* of approximately sixty waste streams examined in depth for today's proposal.

Further justification for setting a lower limit of 2 million metric tons per year on total waste generation volumes can be found in the lists of wastes that the Agency has considered to be "high volume" ever since the "special waste" concept was officially articulated in 1978. See 43 FR 58946. In addition, the wastes from ore and mineral extraction and beneficiation, which are clearly within the exclusion, are generated by most commodity sectors at a rate of at least two million metric tons per year, as are

the drilling wastes and produced waters from oil and gas production identified in section 8002(m) of RCRA.[11]

Therefore, under today's proposal, individual mineral processing waste streams that are generated in the aggregate in quantities exceeding 2 million metric tons per year shall be retained within the Bevill exclusion. These wastes will be studied by EPA to determine whether regulation under Subtitle C is warranted.

At the same time, as discussed above, EPA recognizes that some mineral commodity sectors may comprise very few facilities, and hence, generate lower total waste quantities than others whose wastes and waste management problems at the individual facility level are otherwise very similar. Therefore, the Agency has explicitly incorporated a consideration of typical (average) waste quantities generated at the plant level into its definition of "high volume." The limit used (50,000 metric tons per facility per year) does *not* retain within the exclusion the vast majority of mineral processing wastes, and in fact retains only those that are generated on a different and considerably larger scale than both the other processing wastes and typical Subtitle C wastes, as discussed above. Here again, the limit that EPA uses approximates the lower end of the range of average waste quantities generated in mineral extraction and beneficiation[12] (oil and gas waste data are available only on a per-well basis and hence are not useful in establishing a quantitative limit for this criterion).

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[11] U.S. EPA, 1985. *Op. cit.*
U.S. EPA, 1987. *Report to Congress on Management of Wastes from the Exploration, Development, and Production of Crude Oil, Natural Gas, and Geothermal Energy; vol 1; Oil and Gas.* Washington: Office of Solid Waste and Emergency Response. EPA/530-SW-88-003.

[12] U.S. EPA, 1985. *Op. cit.*

C. Criteria for Identifying "Low Hazard" Wastes from Ore and Mineral Processing

Based on the court's findings in *EDF* v. *EPA*, an ore or mineral processing waste must be a "special waste", that is, a "high volume, low hazard" waste, in order for it to be temporarily excluded from RCRA Subtitle C regulation by the Bevill Amendment. To determine whether a processing waste is of "low hazard", EPA began with three principles:

(1) The purpose of a "low hazard" criterion is to assist in identifying the wastes that EPA is required by the Bevill Amendment to study so that actual hazard can be assessed;

(2) The "low hazard" criterion must be consistent with Congressional intent; and

(3) The "low hazard" criterion must be easily applied to the universe of high volume processing wastes using existing or easily obtainable information.

EPA considered two approaches to identifying "high volume" ore and mineral processing wastes that are "low hazard," and thus, should be temporarily excluded from Subtitle C regulation by the Bevill Amendment, as follows:

(1) Define excluded waste as any "high volume" processing waste that does not exhibit any of the characteristics of hazardous waste as defined in RCRA Subtitle C (EP-toxicity, corrosivity, reactivity, or ignitability); and

(2) Eliminate this criterion, and consider all "high volume" processing wastes to be temporarily excluded from Subtitle C regulation.

Today's proposal is based on the second approach listed above, i.e., EPA considers all wastes that meet the proposed "high volume" and "processing" waste criteria to be "special wastes" and thus, *temporarily* excluded from RCRA Subtitle C regulation by the Bevill Amendment.

EPA takes this position because the Agency believes that the alternative approach is inappropriate as a basis for *screening* high volume wastes to determine the need for study in a Report to Congress. Moreover, option 1 is impractical because the data needed to implement it would not be available until detailed studies, such as those that would support the Report to Congress, have been conducted.

EPA believes that it would be inappropriate to use the existing hazardous waste characteristics as a basis for determining which high-volume processing wastes are "low hazard." When EPA promulgated hazardous waste regulations on May 19, 1980, that deleted the "special waste" category proposed in 1978, the Agency indicated that a "special waste" category was no longer necessary because the originally proposed EP-toxicity and corrosivity characteristics for defining hazardous waste had been more narrowly defined, thus eliminating prospective Subtitle C regulation of most previously identified "special wastes." See 45 FR 33175.

When Congress adopted the Bevill Amendment, it instructed EPA to study wastes from the extraction, beneficiation, and processing of ores and minerals, prior to subjecting them to Subtitle C regulation; some of these wastes exhibit hazardous characteristics and would therefore fall under Subtitle C in the absence of the Bevill exclusion. Indeed, several of the extraction and beneficiation wastes already studied by EPA under sections 8002 (f) and (p) of RCRA fail one or more of the RCRA hazardous characteristics. Yet, EPA determined to not regulate any of these studied wastes under Subtitle C. On the same day that the Court of Appeals ordered EPA to propose today's rule, it upheld the Agency's regulatory determination for extraction and beneficiation wastes, explicitly rejecting the argument that if a waste fails a characteristic then it must be regulated under Subtitle C, and accepting EPA's contention that other factors can be con-

sidered in determining whether a high-volume mining waste should be permanently excluded from Subtitle C regulation. *Environmental Defense Fund* v. *EPA*, 852 F.2d 1309 (D.C. Cir. 1988). EPA believes that the Court would also recognize that the characteristic tests should not be the primary factors in determining whether a mineral processing waste is to be afforded the temporary exclusion provided by the Bevill Amendment.

In addition to examining Congressional intent and recent Court decisions, the Agency also considered the practicality of using the hazardous waste "characteristics" for identifying "high volume" wastes that are not "low hazard." Specifically, EPA examined the data available on mineral processing wastes, and concluded that the necessary data on waste characteristics are only rarely available, and, where available, are highly variable. Extensive study by EPA would therefore be necessary before the Agency could apply these criteria to the high-volume processing wastes. Accordingly, the Agency also concluded that the implementation of a "low hazard" criterion based on RCRA Subtitle C hazardous waste "characteristics" would not be feasible.

EPA also briefly considered developing a substitute test for determining whether large-volume processing wastes are low hazard. However, EPA does not have an appropriate alternative test currently in place. Further, EPA has even fewer data to characterize the hazards of large-volume processing wastes using alternate tests. In light of the very short time granted by the Court of Appeals to propose this reinterpretation, EPA found it infeasible to develop an alternate test and collect the necessary data.

For the reasons stated above, EPA believes that it is both necessary and appropriate that the emphasis in defining mineral processing wastes that are temporarily excluded from Subtitle C regulation by the Bevill Amendment be on the volume of waste generated. This is the same

conclusion that EPA reached in 1985 when the Agency proposed to reinterpret the scope of the Bevill Amendment and stated that:

Based on the various indications of Congressional intent described in the text, EPA believes it is reasonable to rely primarily on volumes of waste generated to determine which wastes should have been excluded by the Bevill Amendment (50 FR 40294).

D. Proposed Bevill-Excluded Processing Wastes

Based upon available data, EPA proposes to retain the wastes presented in Table 3, below, within the Bevill exclusion, because they meet the criteria for "special" mineral processing wastes articulated in this proposal. The Agency encourages members of industry and the public to submit, in public comment, descriptions of and quantitative data regarding any *additional* specific waste streams that they believe meet these criteria for study by EPA prior to the final resolution of their regulatory status.

Table 3.—Special Wastes Generated From Mineral Processing That Are Proposed for Retention Within the Bevill Exclusion

Commodity sector and waste type	Number of facilities	Total estimated industry-wide waste generation (MT/yr)[a]	Average waste generation for facility (MT/yr)[b]
Copper:[c]			
Smelting Slag	8	3,652,080	456,510
Process Wastewater	10	530,500	53,050
Acid Plant Blowdown	7	4,399,710	628,530
Bleed Electrolyte	7	444,600	63,514
Lead:[c] Smelting Slag	5	328,630	65,726
Zinc:[c]			
Process Wastewater	2	1,451,000	725,500
Acid Plant Blowdown	4	305,800	76,450

Bauxite:[c] Red and Brown Muds	4	2,697,000	674,250
Other:[d]			
Phosphogypsum	27	47,000,000	1,740,741
Elemental Phosphorous Slag	5	3,000,000	600,000
Iron Blast Furnace Slag	24	9,805,000	408,542
Iron Blast Furnace APC Dust/ Sludge	24	3,197,000	133,208
Lime Kiln APC Dust	117	3,300,000	28,205
Waste Acids from Titanium Dioxide Production[e]	8	1,375,000	171,825
Chromite Ore Roasting/Leaching Slag[f]	2		> 50,000

[a]Total Estimated Industry-Wide Waste Generation = (Facility Capacity) * (Projected Average Long-term Utilization) * (Generation Rate). Source: EPA estimates based on data provided by the U.S. Bureau of Mines, PEDCo Environmental Incorporated, Radian Incorporated, and individual facility operators.

[b]Average Waste Generation per Facility = (Total Estimated Industry-Wide Waste Generation)/(Number of Facilities).

[c]Detailed data are available on wastes in these commodity sectors because EPA was about to complete and submit a required Report to Congress addressing their management when today's proposed rule was mandated by the Court. Data on the other wastes remaining within the exclusion are far more limited.

[d]Industry-wide waste totals were obtained from a prior proposed rulemaking (50 FR 40292). Number of facilities generating each waste were obtained from the Bureau of Mines (personal communication. 1988).

[e]Data on waste generation rates were obtained from PEI Associates, Inc., 1984. *Overview of Solid Waste Generation, Management, and Chemical Characteristics: Primary Antimony, Magnesium, Tin, and Titanium Smelting and Refining Industries.* Prepared for Industrial Environmental Research Laboratory, Office of Research and Development, U.S. EPA.

[f]Total waste generation data are unavailable. Average waste generation is believed to be greater than 50,000 MT/yr. based upon production volumes and quantities of feedstocks consumed.

Most mineral processing wastes on which the Agency has information do not conform to the "high volume" criteria used to compile the list presented in Table 3. This includes most that has been proposed for study under the Bevill Amendment in public comment on the 1985 proposed reinterpretation. In addition, none of the six smelting wastes that were recently relisted as hazardous wastes satisfy the high volume criteria described here. Within the five metallic ore processing sectors that have been most

extensively studied by EPA (aluminum, bauxite, copper, lead, and zinc), the range of total sector-wide volumes of waste streams that are not retained within the proposed exclusion is very broad, from 100 to 228,000 metric tons per year, though the upper end of this range is a full order of magnitude lower than the cutoff for meeting the high volume criterion. Average generation rates at individual plants range from 20 to 38,000 metric tons per year. Only one waste stream (wastewater treatment plant sludge in the copper sector) is generated in volumes that approach the limit necessary to remain within the exclusion (average of 50,000 MT/yr).

All other waste streams arising from these five metal processing sectors are generated at an average of less than 10,000 metric tons per year, and most are generated in the *hundreds* of tons per facility per year.

Therefore, EPA believes that it has correctly and unambiguously identified the wastes that were of concern to Congress when it enacted the Bevill amendment, and has, at the same time, presented explicit criteria that will enable members of the regulated community and the public to evaluate whether any additional wastes should be added to the list in Table 3 for the continued regulatory exclusion and study provided by the Bevill amendment. The Agency has identified and proposed for temporary exclusion *all* of the wastes from ore and mineral processing that, according to available data, meet these criteria. In the absence of new information submitted during the public comment period, EPA does *not* anticipate that additional wastes will be proposed for exclusion under the Bevill Amendment when this proposed rule is *finalized* on February 15, 1989. Accordingly, EPA hereby solicits public comment (and supporting data) on the approach described in this proposal, on the specific numerical criteria, on the specific waste streams proposed for continued exclusion from Subtitle C under Bevill, and on any *additional* candidate Bevill

wastes. EPA will address all major comments received during the 30-day comment period prior to finalizing the rule.

APPENDIX D

Congressional Record—Extension of Remarks
November 17, 1980

SOLID WASTE DISPOSAL ACT AMENDMENTS OF 1980

HON. TOM BEVILL
OF ALABAMA
IN THE HOUSE OF REPRESENTATIVES

Monday, November 17, 1980

• Mr. BEVILL. Mr. Speaker, I am happy to note that the Solid Waste Disposal Act Amendments of 1980 were signed into law by President Carter on October 21, 1980. This statute provides the strengthening of this country's solid waste management program which is required to deal effectively with this most important environmental problem.

I am also pleased that the Solid Waste Disposal Act Amendments of 1980 as enacted include the amendment which I offered on February 20, 1980. This amendment defers regulation, under the hazardous waste management provisions of the act, for certain solid wastes. The regulations are deferred pending completion of studies by the U.S. Environmental Protection Agency. These studies are designed to gather the information necessary to determine whether these wastes actually present hazards which need regulatory attention.

As I pointed out at the time my amendment was introduced, the amendment is in no way intended to limit EPA's appropriate attention to hazardous wastes disposal practices which have been shown to threaten our communities and environment. Quite to the contrary, my amendment clarifies the intent of Congress that EPA not diagress from issues deserving immediate attention.

In accord with that intent, my amendment requires that detailed and comprehensive studies be conducted to develop the information necessary to determine whether the wastes listed in the amendment are deserving of such attention. To afford an adequate basis for regulatory decisions, it is most important that these studies consider all wastes affected by the amendment.

As I stressed on February 20, 1980, in connection with the utility wastes subject to my amendment.

> The list of waste materials in the amendment • • • (should) be read broadly, to incorporate the waste products generated in the real world. • • •

I wish to emphasis that this intention applies equally to all other wastes mentioned in the amendment. For example, all solid wastes which genuinely and legitimately result from the extraction, beneficiation, and processing of ores and minerals, including phosphate rock, and overburden from the mining of uranium ore and cement kiln dust waste are subject to my amendment. The inclusion of all such wastes within the scope of this amendment assures that the health and environmental effects of all wastes generated by the listed operations are fully studied in the detailed and comprehensive manner required. Detailed and comprehensive studies will, in turn, assure that the regulatory decisions made by EPA on the basis of these studies are valid and in the public interest. •